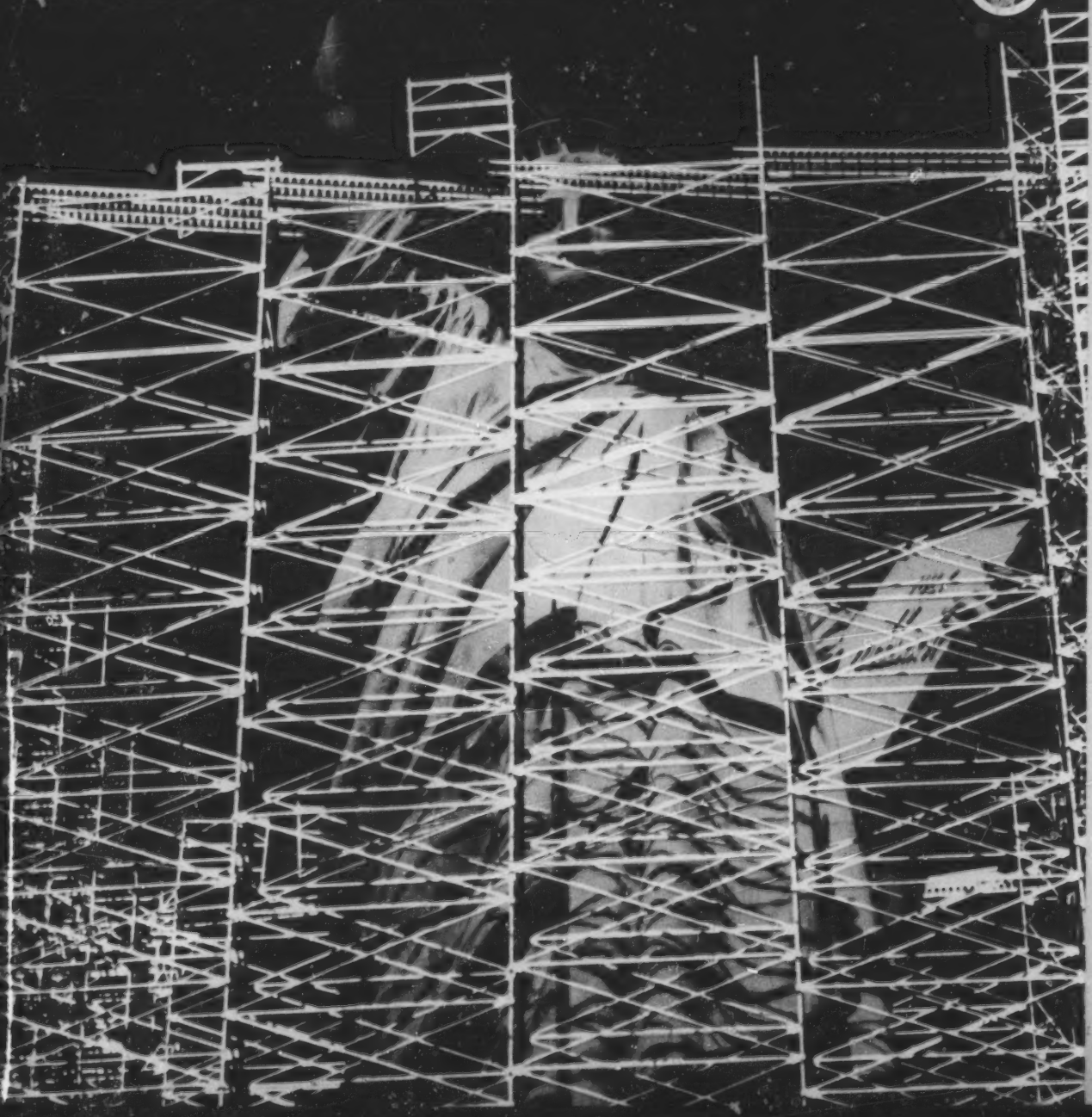
Aluminum statistical review for 1984

A0400-2U 9/85

the Aluminum Association



94

Aluminum statistical review for 1984

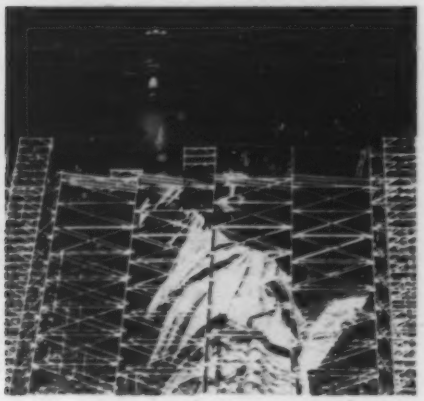
$25.00

Contents

The Aluminum Association does not warrant the accuracy or completeness of any data in this Review. All data contained herein are subject to revision.

The Aluminum Statistical Review is an annual publication of the Aluminum Association, inc.
818 Connecticut Avenue, N.W.,
Washington, D.C. 20006.
Department of Economics and Statistics 202-862-5100.

About the cover:



As the industry nears the centennial marking the discovery of the process for producing aluminum, the nation approaches the 100th anniversary of the dedication of the Statue of Liberty. To help with her facelift, 600,000 lbs. of aluminum extrusions are used to form the 81 × 81 foot scaffolding.

Introduction 2
Capsule Review 3

Shipments

Total Industry Shipments 5
Imports of Mill Products 5
Shipments of Ingot & Mill Products 6
General Line Distributor Shipments 8
Shipments of Castings 9

Markets

Shipments by Major Market 10
Product Shipments by Major Market 13
Trends in Selected Markets 18

Supply

Introduction 21
Total Supply 22
U.S. Suppliers' Inventories 23
Total Supply Adjusted for Stockpile 24
Production of Primary Aluminum 25
Primary Aluminum Capacity 26
Number of Plants in the United States 27
Geographic Distribution of Aluminum Plants 27
Aluminum Scrap-Consumption and Recovery 30

U.S. Foreign Trade Statistics

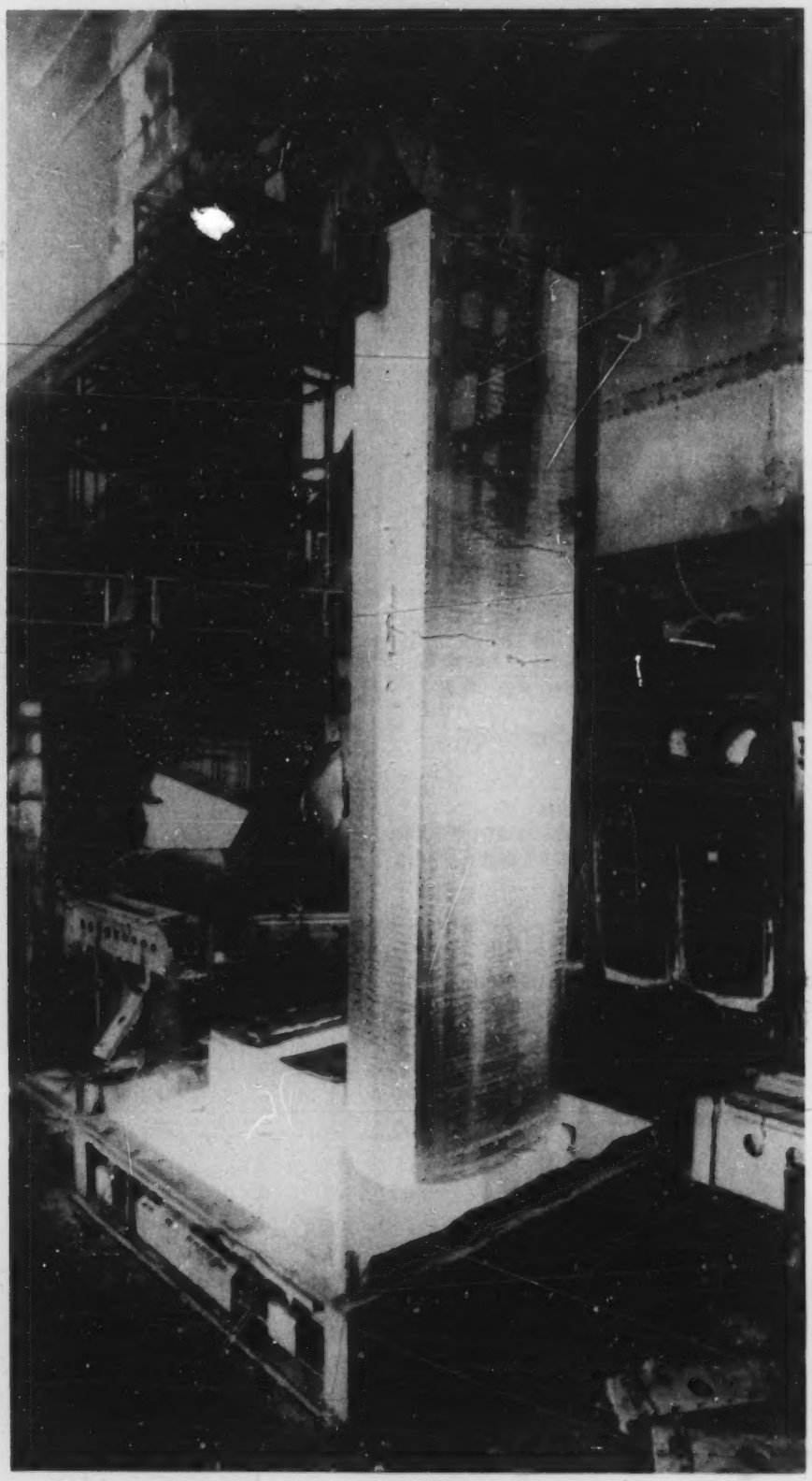
Introduction 35
U.S. Imports & Exports 36
U.S. Imports by Products and Country 38
U.S. Exports by Product and Country 40

World Statistics

Introduction 43
World Primary Aluminum Production 44
Aluminum Supply & Apparent Consumption—Selected Countries 46

Glossary 62

Publications 64



ABOUT THE REVIEW

The Aluminum Association's Statistical Review for 1984 assembles in one place the most important statistical data available on the aluminum industry. It includes information on every cycle of the aluminum production process from primary aluminum to markets for finished goods.

The Aluminum Association, Inc., representing the United States aluminum industry, is the primary source for statistics, standards and other information on aluminum and the industry.

The Review is divided into five major sections: shipments, markets, supply, U.S. foreign trade, and world statistics. Each section is preceded by an introduction and description summary of the tables that follow. In addition each graph or table has a description and highlights. The Review shows detailed shipment figures for 23 separate product categories. A glossary of industry terms is appended as well.

Capsule Review

Millions of Pounds	1984	1983
Total Supply	15,951	13,5[illegible]r
Primary Production	9,037	7,393
Primary Capacity (Year-end)	10,498	11,018
Shipments to Major Markets		
Building and Construction	2,856	2,870r
Transportation	2,939	2,340r
Consumer Durables	1,106	1,054r
Electrical	1,492	1,298r
Machinery & Equipment	825	779r
Containers & Packaging	4,038	3,918
Other	1,094	653r
Total Domestic Shipments	14,350	12,912r
Exports	1,076	1,241
Total Shipments	15,426	14,153r

r—Revised

After removal from a soaking pit, an aluminum alloy ingot is carefully checked for variance in the chemical composition.

1984 Highlights

A record 14,350 million pounds of aluminum were shipped to U.S. markets in 1984, up 11.1 percent from the 1983 level of 12,912 million pounds. 1984 aluminum consumption was also 3.7 percent higher than the previous record year of 1979 where 13,844 million pounds were shipped to U.S. markets. Aluminum exports of ingot and semifabricated products, however, declined 13.3 percent in 1984 to 1,076 million pounds.

Total aluminum shipments, including exports, reached a record level in 1984 of 15,426 million pounds, an increase of 9.0 percent over the 1983 shipments of 14,153 million pounds.

For the fourth year in a row, total aluminum imports into the U.S. continued to increase, reaching a record 3,353 million pounds in 1984, 36.0 percent over 1983 levels. Imports of aluminum ingot totaled 1,944 million pounds in 1984, an 18.8 percent increase over 1983 imports of 1,637 million pounds. Total imports of aluminum mill products in 1984 were 1,090 million pounds, a 76.2 percent increase over 1983 imports of 618 million pounds.

Consumer imports of mill products totalled 866 million pounds in 1984, up 63.1 percent from 1983 and achieved a 7.6 percent penetration of U.S. mill product consumption. This was up significantly from 5.0 percent in 1983. Historically, the U.S. has been a net exporter of aluminum mill products, but this changed starting in 1983.

"Net" shipments exclude intra-industry shipments for further fabrication. It is the most accurate measure of industry output to markets because it eliminates duplication. Reported receipts of aluminum for further processing are subtracted.

The **United States supply** of aluminum in 1984 jumped 17.9 percent to a record level of 15,951 million pounds. Domestic primary production increased 22.2 percent to 9,037 million pounds, imports of aluminum ingot and mill products were up 34.5 percent to 3,034 million pounds and domestic recovery from scrap accounted for 3,880 million pounds, a 0.7 percent decrease.

Containers and Packaging continue to be the industry's largest market in 1984 with a volume of 4,038 million pounds and accounting for 26.1 percent of the total 1984 shipments. This market increased 3.1 percent over 1983 shipments of 3,918 million pounds.

The second largest market for 1984 was the **Transportation** market totaling 2,939 million pounds and accounting for 19.0 percent of the total shipments, increased 25.6 percent over 1983. The **Building and Construction** market 1984 shipments of 2,856 million pounds declined slightly, down 0.5 percent from 1983.

The **Electrical** market showed an increase of 14.9 percent over 1983 with 1984 shipments at 1,492 million pounds. **Consumer Durables** shipments registered a 4.9 percent increase to a 1,106 million pound volume in 1983.

Shipments to the nonelectrical **Machinery and Equipment** market were up 5.9 percent to 825 million pounds and shipments to "**Other**" or miscellaneous identified markets totaled 1,094 million pounds, an increase of 67.5 percent from 1983.

Acknowledgments

The data for this **REVIEW** were developed by the Statistical and Marketing Research Committee of the Aluminum Association, Inc. along with the cooperation of the following organizations: National Association of Aluminum Distributors; Can Manufacturers Institute; Bureau of the Census, U.S. Department of Commerce; and the Bureau fo Mines, U.S. Department of the Interior.

The **Aluminum Statistical Review** for 1984 was compiled and edited by Nicholas A. Adams, Manager, Market Statistics.

Statistical and Marketing Research Committee of the Aluminum Association, Inc.

J. Dickinson, Chairman	L.T. O'Carroll
R.G. Beck	G. Schenks
F. J. Correa	W.M. Schott
T.Fabek	J. Steadman
R.J. Grayson	T.M. Stoepler
R. Hanson	J.A. Vais

Companion Publication

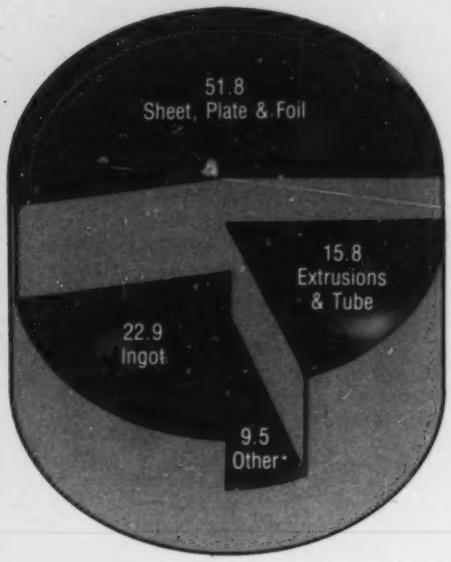
Aluminum Statistical Review–Historical Supplement

Historical tables covering the years 1960-1980 with some tables covering years prior to 1960.

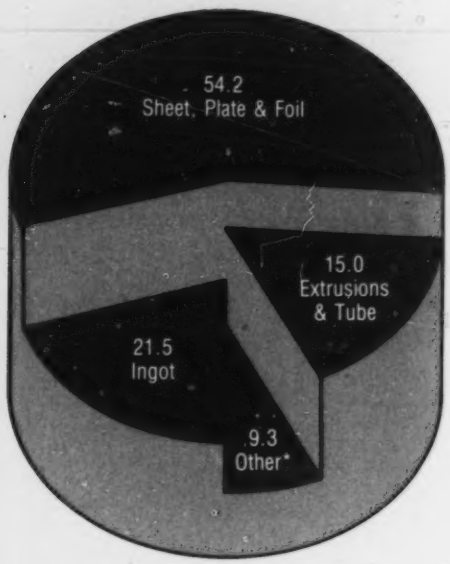
Contact the Aluminum Association for further information.

U.S. Aluminum Industry Shipments

Percentage Distribution by Major Products: 1984



Percentage Distribution by Major Products: 1983



*Other

Conductor	4.8 (4.9)
Rod, Bar, Wire, Forgings & Impacts	3.6 (3.4)
Powder	0.7 (0.6)
Welded Tube	0.4 (0.4)

NOTE: 1983 percentages are shown in parentheses

SHIPMENTS UP 9.0 PERCENT

Total net shipments in 1984 amounted to 15,426 million pounds, 9.0 percent more than the 14,153 million pounds shipped in 1983.

The adjacent chart shows that the largest product category of sheet, plate and foil represented 51.8 percent of total shipments in 1984 (54.2% in 1983). Ingot for castings, destructive uses and exports accounted for 22.9 percent (21.5% in 1983) and extruded products and tube shipments were 15.8 percent (15.0% in 1983) of total shipments.

Including net imports, sheet and plate and foil volume of 7,986 million pounds were up 4.1 percent from 1983. Extruded products and tube shipments totaled 2,441 million pounds, up 15.0 percent from 1983.

Total shipments to U.S. consumers at 14,350 million pounds were up 11.1% from the 1983 level of 12,912 million pounds. Exports dropped 13.3 percent from their 1983 level of 1,076 million pounds.

DESCRIPTION:

Total aluminum industry shipments presented on the next page are net shipments to U.S. consumers and for export. To avoid duplication, the figures do not include any intra-industry shipments for further fabrication into mill products. Imported ingot and mill products shipped to U.S. consumers are included.

Net shipments of ingot include domestic and import shipments and represent primary and secondary ingot shipments for export, for castings and destructive uses. Net shipments of mill products are shown separately for domestic and import. Mill product imports to aluminum producers are not included in total industry shipments. These imports are further processed by the producer into another mill product which is included in the total.

Imports to consumers are included in total industry shipments. These consumers fabricate the aluminum into a finished product. Imported mill products are net of receipts by producers of mill products. Imported mill products data include reimports of metal exported for processing and returned for further processing.

The pie charts illustrate the distribution of net shipments of aluminum ingot and mill product groups during 1984 and 1983. They include net shipments of ingot and domestic mill products but exclude imported mill products, because import data are not available in the same detail as domestic shipments of mill products. The distribution is based on data shown on pages 6 and 7. The imported mill products are shown on page 5.

For information on years prior to 1974 see the Aluminum Statistical Review—Historical Supplement.

Total Industry Shipments

Millions of Pounds

Net Shipments	1984 % Total	1984 Amount	1983 % Total	1983 Amount	1984-1983 % Change	1974-1984 % Annual Growth
Total	100.0	15,426.4	100.0	14,153.2	9.0	1.8
Ingot	22.9	3,530.2	21.5	3,044.8	15.9	2.7
Mill Products	77.1	11,896.2	78.5	11,108.3	7.1	1.6
U.S. Producer	71.5	11,030.3	74.7	10,577.5	4.3	1.1
Consumer Imp.	5.6	865.9	3.8	530.8	63.1	17.4
U.S. Exports	7.0	1,076.4	8.8	1,240.9	−13.3	5.5
U.S. Consumers	93.0	14,350.0	91.2	12,912.3	11.1	1.5

Total Industry Shipments 1974-1984

Millions of Pounds

	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
Net Shipments											
Total	15,426.4	14,153.2r	12,505.1r	13,814.4	14,35[illegible].0	14,867.3	14,425.3	12,986.0	12,425.1	9,928.5	13,730.2
Ingot	3,530.2	3,044.8r	3,090.3r	3,236.4	3,723.8	3,287.0	2,672.3	2,388.3	2,540.1	2,377.7	3,178.4
Mill Products											
U.S. Producer	11,030.3	10,577.5r	9,026.8r	10,337.8	10,484.9	11,230.4	11,346.0	10,442.9	9,705.6	7,426.6	10,461.0
Imported	865.9	530.8r	388.0	240.2	142.3	349.9	407.0	154.8	178.3	124.3	90.8
U.S. Exports	1,076.4	1,240.9	1,294.7	1,370.0	2,193.3	1,022.9	747.4	712.2	820.5	805.0	927.1
U.S. Consumers(1)	14,350.0	12,912.3r	11,210.4r	12,444.4	12,157.7	13,844.4	13,677.9	12,273.8	11,604.6	9,123.5	12,803.1

Detail may not add to totals due to rounding.

SOURCES: Current Industrial Report Series M33-2.
Mill products, exports, imports: U.S. Department of Commerce, Bureau of The Census, Foreign Trade Division, and CIR Series M33-2.

(1) Shipments to consumers in the U.S. are calculated by subracting exports of ingot and mill products from total industry shipments. Includes no adjustment for inventories in the hands of consumers.

Mill Products Imports 1974-1984

Millions of Pounds

	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
Total Imports(1)											
Total	1,089.7	618.3	455.6	303.9	168.1	426.3	484.5	164.8	189.0	130.2	109.7
Sheet & Plate	884.5	536.1r	414.8	247.1	126.1	357.3	433.7	128.7	150.5	107.1	69.7
Rod & Bar	86.3	27.4	10.1	34.2	16.3	38.0	22.1	18.1	20.9	12.7	18.8
Other	118.9	54.9r	30.7	22.6	25.7	31.0	28.7	18.0	17.6	10.4	21.2
Imports to Consumers(1)											
Total	865.9	530.8r	388.0	240.2	142.3	349.9	407.0	154.8	178.3	124.3	90.8
Sheet & Plate	756.6	476.4r	357.7	205.6	115.7	317.0	371.0	124.7	144.8	106.6	53.9
Rod & Bar	6.7	* r	1.2r	12.3	9.1	2.2	9.7	12.4	16.1	7.3	15.7
Other	102.6	54.4r	29.2r	22.3	17.5	30.7	26.3	17.7	17.3	10.4	21.2
Imports to Producers(2)											
Total	223.8	87.5r	67.6	63.7	25.8	76.4	77.5	10.0	10.8	5.9	18.9
Sheet & Plate	127.9	59.7r	57.2	41.5	10.4	40.3	62.7	4.0	5.7	0.5	15.8
Rod & Bar	79.6	27.4r	8.9r	21.9	7.2	35.8	12.4	5.7	4.8	5.4	3.1
Other	16.3	0.5r	1.5r	0.3	8.2	0.3	2.4	0.3	0.3	*	—

**Less than 50 thousand pounds.*

Detail may not add to totals due to rounding.

(1) Includes reimports of metal exported for processing and returned for further processing (TSUSA 806.30).

(2) Product detail estimated by Aluminum Association from published ranges.

SOURCES: U.S. Department of Commerce, Bureau of The Census, Foreign Trade Division and CIR Series M33-2.

Net Shipments of Ingot and Mill Products
Excludes Mill Product Imports to Consumers 1952-1984

Millions of Pounds

Year	Total aluminum	Total Ingot	Primary Ingot	Secondary[3][4] Ingot	Extusion[5] Ingot	Total mill products	Sheet & Plate nonheat treatable	Sheet & Plate heat treatable	Foil	Forgings[2] Impacts[2]
1952	2,661.6	811.2	339.8	471.4	—	1,850.4	641.4	288.0	85.4	
1953	3,211.2	982.9	383.1	599.8	—	2,228.2	856.9	322.2	119.2	
1954	3,006.8	920.2	425.7	494.5	—	2,086.6	768.2	243.6	153.3	
1955	3,997.2	1,205.4	509.9	695.5	—	2,791.8	1,049.6	295.0	198.2	70.3
1956	4,109.3	1,223.5	520.1	703.4	—	2,885.8	1,050.6	327.0	190.5	75.7
1957	3,839.2	1,161.6	458.2	703.4	—	2,677.6	943.8	248.7	204.0	64.3
1958	3,571.1	974.0	368.6	605.4	—	2,597.1	944.4	209.1	199.6	50.8
1959	4,961.1	1,575.0	751.4	803.4	20.2	3,386.1	1,284.6	231.3	252.6	53.8
1960	4,657.7	1,608.6	852.3	665.2	91.1	3,049.1	1,203.4	184.8	249.0	50.1
1961	4,881.7	1,536.6	690.7	701.9	144.0	3,345.1	1,256.3	237.0	270.6	56.4
							Sheet	Plate		
							NHT	HT	NHT	HT		
1962	5,669.8	1,858.6	768.9	848.7	241.0	3,811.3	1,361.8	157.3	108.9	82.9	297.4	79.4
1963	6,289.7	2,032.6	859.2	885.9	287.5	4,257.2	1,626.5	165.2	126.5	77.1	322.3	84.0
1964	7,063.5	2,228.6	946.5	995.1	287.0	4,834.9	1,903.0	167.8	124.2	79.0	356.7	88.4
1965	8,016.7	2,337.3	1,069.3	1,126.9	141.1	5,679.4	2,179.8	223.0	109.0	97.0	395.7	96.4
1966	8,797.6	2,340.1	987.2	1,190.4	162.6	6,457.5	2,382.4	281.5	125.7	147.2	432.2	139.2
1967	8,836.9	2,486.4	1,063.6	1,189.1	233.7	6,350.6	2,385.6	227.4	119.5	135.6	449.4	165.2
1968	9,861.8	2,694.8	1,154.2	1,284.3	256.3	7,167.0	2,910.8	250.2	103.5	140.0	508.7	105.7 62.1
1969	10,717.5	3,051.2	1,569.4	1,264.9	216.9	7,666.3	3,299.3	200.8	105.8	120.9	559.9	97.3 59.3
1970	9,952.5	2,594.5	1,307.0	1,126.0	161.5	7,358.0	3,376.4	126.7	94.1	91.4	558.7	71.4 49.0
1971	10,267.3	2,428.5	1,004.5	1,187.7	236.3	7,838.8	3,691.1	121.6	75.6	87.8	585.6	69.5 28.7
1972	11,880.0	2,633.8	1,000.7	1,467.9	165.2	9,246.2	4,431.4	160.6	78.8	97.1	673.2	95.3 27.5
1973	14,568.2	3,668.4	1,615.7	1,757.8	294.9	10,899.9	5,308.7	203.3	109.7	119.6	774.4	114.8 27.6
1974	13,639.5	3,178.4	1,503.5	1,457.4	217.4	10,461.1	5,087.9	216.5	157.2	164.6	748.2	112.8 25.5
1975	9,804.2	2,377.7	1,275.0	1,019.1	83.5	7,426.6	3,676.8	121.0	143.2	111.2	611.8	82.8 14.4
1976	12,245.6	2,540.1	1,108.5	1,227.6	203.9	9,705.6	5,167.0	191.9	108.4	106.5	772.3	83.1 17.1
1977	12,831.3	2,388.3	768.5	1,443.6	176.2	10,443.0	5,505.5	300.4	104.2	130.3	805.6	105.7 15.6
1978	14,018.4	2,672.3	923.3	1,658.7	90.3	11,346.0	5,785.4	350.0	116.1	157.1	876.6	115.7 20.7
1979	14,517.3	3,287.0	1,281.2	1,830.7	175.1	11,230.3	5,632.4	365.4	114.9	183.5	887.0	127.4 31.4
1980	14,208.7	3,723.8	1,958.3	1,582.1	183.5	10,484.9	5,301.8	247.3	92.2	220.9	830.4	107.2 26.0
1981	13,574.2	3,236.4	1,485.3	1,704.5	46.6	10,337.8	5,504.0	200.9	106.1	167.1	850.4	109.2 29.8
1982	12,117.2r	3,090.3r	1,508.0r	1,517.3r	65.1r	9,026.8r	4,976.9	150.1	70.9	131.2	731.2	78.9 25.3
1983	13,622.4r	3,044.8r	1,438.5r	1,499.2r	107.2r	10,577.5r	5,952.4r	181.0r	57.5	145.4	826.4r	88.6 27.6
1984	14,560.6	3,530.2	1,794.7	1,768.2	−32.6	11,030.3	5,856.5	221.2	81.5	173.4	852.7	114.9 29.3

(1) A small amount of rolled structural shapes is included with the rod & bar in 1946-1961 and with extruded shapes in subsequent years.

(2) Through 1954 forgings and impacts were not reported. They were included in appropriate forging stock product categories, mainly rolled rod & bar instead of forgings.

(3) 1952-1958 Secondary ingot included extrusion ingot.

(4) Secondary ingot includes shipments by integrated companies, secondary smelters and imports.

Detail may not add to totals due to rounding.

Millions of Pounds

Extruded Shapes				Tubing							
Soft alloys	Hard alloys			Soft alloys	Hard alloys	Rod & bar[1]	Wire, bare (non conductor)		ACSR & bare cable	Ins. or Cov. wire & cable & wire, bare (conductor)	Powder
206.2	81.0			46.4	14.2	197.3	42.7		174.7	23.4	49.7
312.6	80.5			55.2	14.1	218.6	45.7		134.0	24.7	44.4
							Wire bare				
							Non Conductor	Conductor		Ins. or cov. wire & cable	
385.8	63.8			53.5	10.1	143.7	41.8	3.8	147.1	25.0	46.9
				Drawn tube	Welded tube						
636.6	45.8			67.2	25.5	109.9	57.7	4.0	156.9	39.5	35.7
641.0	63.5			60.2	27.6	117.8	54.4	5.5	187.4	56.1	28.4
							Wire, bare				
645.6	61.2			56.2	26.7	116.9	50.4		181.5	50.3	28.2
693.5	49.8			59.8	18.7	75.6	44.2		174.8	51.0	25.6
931.3	47.9			72.9	30.0	124.6	64.6		196.7	60.8	34.9
812.1	38.9			60.3	25.9	92.9	55.4		183.1	60.4	32.8
884.1	50.5			64.0	35.4	100.8	52.6		232.8	68.6	35.9
Extruded rod & bar		Extruded shapes[1]		Extruded pipe & tube							
Soft	Hard	Soft	Hard	Soft	Hard						
54.8	12.6	782.4	44.8	139.5	5.2	78.4		40.7	136.4	55.0	253.2	76.9	43.7
61.1	10.2	870.7	54.2	150.3	6.1	65.5		52.1	121.0	57.6	272.3	89.2	44.8
						Drawn tube							
						Soft	Hard						
70.5	12.6	1,016.4	41.0	158.2	4.3	60.3	6.6	77.4	146.8	63.1	309.2	103.2	46.3
68.2	14.8	1,224.3	57.5	174.9	2.7	78.8	3.7	93.7	159.7	82.6	429.3	129.4	58.8
67.2	21.5	1,335.3	97.7	190.6	6.9	92.2	7.5	91.2	151.9	103.2	507.4	165.3	111.4
43.6	18.4	1,222.7	84.5	157.4	8.5	81.7	7.5	87.8	143.0	97.7	506.2	174.7	234.0
37.3	21.1	1,363.0	70.0	170.2	11.8	84.6	8.0	106.9	130.0	100.4	492.2	214.0	276.4
42.2	21.1	1,460.2	72.3	196.1		81.8	7.2	101.6	144.3	94.7	475.1	250.5	276.0
39.7	16.8	1,369.2	43.4	176.9		80.7	3.5	92.5	110.0	93.5	499.5	260.2	204.5
37.7	16.4	1,550.6	42.1	186.1		81.6	2.7	96.3	102.2	96.8	481.8	317.1	167.5
40.5	16.6	1,838.4	44.6	193.8		89.1	3.7	116.6	181.5	106.6	453.6	371.0	226.4
48.3	18.9	2,038.6	72.2	225.6		105.7	4.6	121.7	289.4	124.1	490.2	445.2	257.4
48.8	14.9	1,807.3	66.4	219.4		110.4		116.8	268.6	131.0	541.4	446.3	177.2
55.7	12.1	1,264.3	47.7	135.9		65.7		61.6	185.8	66.3	425.1	246.3	98.9
69.9		1,661.8	28.9	188.8		98.0		94.2	279.9(6)	79.9(6)	321.4	304.1	132.4
82.5		1,845.5	65.4	183.8		104.3		114.5	145.5(6)	85.3(6)	351.0	376.7	121.1(7)
113.7		2,021.9	93.2	176.8		106.7		110.4	266.5	89.3	390.3	419.6	135.9
100.9		1,990.1	104.2	151.9		95.9		83.5	300.0	91.3	417.4	427.5	125.6
113.0		1,791.2	107.3	140.7		80.7		96.8	377.6	72.2	399.8	363.2	116.6
102.9		1,732.9	69.9	127.3r		74.6		114.2	272.0	68.3	378.7	321.6r	107.7
74.5r	19.4	1,568.1r	48.2r	89.5r	11.4	60.9		47.9	190.4	50.8	345.2	276.0	80.0
89.2	25.4	1,859.5r	55.2r	122.2r	14.3	65.2		56.4	187.1r	54.9r	357.4	333.3	78.7
91.5	31.0	2,103.7	88.0	153.8	22.6	56.4		59.9	201.2	54.3	346.0	393.8	98.7

(5) Extrusion ingot includes primary and secondary metal shipments by integrated companies, non-integrated companies, secondary smelters and imports includes exports and overstated domestic shipments due to insufficient reporting of receipts.

(6) Bare wire estimated by the Aluminum Association from part year reporting.

(7) Powder, n.e.c., included for only nine months of 1976 and excluded entirely for 1977.

SOURCE: U.S. Department of Commerce, Bureau of The Census, Industry and Trade Administration, Bureau of Domestic Business Development, Office of Basic Industries--Current Industrial Reports since 1960; Facts for Industry 1959 and earlier.

General Line Distributor Shipments

DISTRIBUTOR SHARE 31.0 PERCENT

During 1984 distributors captured 31.0 percent of their available market. Total U.S. shipments of Mill products, excluding direct mill uses, was 4,555 million pounds, up 10.6 percent from 1983. Distributor shipments at an estimated 1,411 million pounds were up 9.8 percent from a year ago.

DESCRIPTION:

The table shows general line distributor shipments as estimated by the Management Information Committee of the National Association of Aluminum Distributors for the years 1974-1984. Also shown are estimates of the total market in which general line distributors are participants. This is labeled Total U.S. Shipments, excluding Direct Mill Uses.

For information on years prior to 1974, see the Aluminum Statistical Review—Historical Supplement.

Direct mill uses are excluded because these end product manufacturers do not buy from distributors. In some cases producers make the final products. These uses include residential siding, extruded shapes for all building products, furniture tube, conduit, irrigation pipe, can stock and exports. Total U.S. shipments excluding direct mill uses thus differ from total aluminum industry shipments of mill products by the amount of direct mill uses and products not generally handled by general line distributors (foil, conductor, forgings, powder).

General Line Distributor Shipments 1974-1984

Millions of pounds

	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
Distributor Shipments											
Total	1,411	1,285r	948	1,200	1,274	1,359	1,319	1,212	1,148	753	1,195
Sheet	938	861r	598	778	747	816	812	758	753	435	708
Plate	146	119r	104	120	155	152	138	112	92	77	128
Rod, bar & wire	134	131	106	140	161	176	161	137	116	85	134
Extruded shapes	132	121	94	107	151	149	138	136	121	105	147
Pipe & tube	61	53	46	55	60	66	70	69	66	51	78
Total U.S. Shipments excluding Direct Mill Uses											
Total	4,555	4,120r	3,170r	3,835	3,832	4,327	5,095	4,442	4,158	2,903	4,600
Sheet	2,855	2,783r	2,056	2,484	2,302	2,598	3,359	3,013	2,772	1,842	2,911
Plate	256	190r	189	240	266	281	253	215	196	210	295
Rod, bar & wire	384	331r	275	331	379	407	398	286	376	257	418
Extruded shapes	865	675	563r	632	710	859	864	741	662	487	782
Pipe & tube	195	141	87r	148	175	182	221	187	152	107	194
Distributor share (per cent)											
Total	31.0	31.2r	29.9r	31.3	33.3	31.4	25.9	27.3	27.6	25.9	26.0
Sheet	32.9	30.9r	29.1	31.3	32.5	31.4	24.2	25.2	27.2	23.6	24.3
Plate	57.0	62.6r	55.0	50.0	58.3	54.1	54.5	52.1	46.9	36.7	43.4
Rod, bar & wire	34.9	39.6r	38.6	42.3	42.5	43.2	40.4	47.9	30.9	33.1	32.1
Extruded shapes	15.3	17.9	16.7r	16.9	21.3	17.4	16.0	18.4	18.3	21.6	18.8
Pipe & tube	31.3	37.6	52.9r	37.2	34.3	36.3	31.7	36.9	43.4	47.7	40.2

NOTE: In this table rod, bar and wire includes extruded rod and bar; pipe and tube includes extruded, drawn and welded pipe and tube
SOURCE: Estimated by the Management Information Committee of the National Association of Aluminum Distributors

Shipments of Castings

SHIPMENTS UP 0.5 PERCENT

There were 1,831 million pounds shipped during 1984 versus the prior year's 1,822 million pounds. Of the total shipments, die castings accounted for 64 percent (69 percent in 1983), permanent mold castings, 18 percent (14 percent in 1983), sand castings, 14 percent (11 percent in 1983) and other castings, 4 percent (6 percent in 1983). Shipments for sale represented 93 percent of sand castings, 77 percent of permanent mold castings and 52 percent of die castings.

This table shows shipments of aluminum castings separately for sand, permanent mold and die castings, both for sale and own use. Own use shipments are for captive consumption in the producers' end products.

Ingot requirements for the castings shipments shown in this table are part of the net ingot shipments shown on pages 5 & 6.

Shipments of Castings
1963-1984

Millions of Pounds

Year*	Total Castings[1]	Sand Castings		Permanent and Semi-permanent Mold Castings		Die Castings	
		for sale	own use	for sale	own use	for sale	own use
1963	1,209.3	160.1	42.1	169.6	159.3	281.2	390.4
1964	1,257.2	168.9	60.6	179.3	137.4	312.6	386.3
1965	1,416.7	193.6	72.7	185.2	134.8	391.3	431.7
1966	1,654.1	220.6	68.0	233.3	156.1	478.7	477.8
1967	1,488.7	155.3	74.1	203.6	126.8	472.2	434.7
1968	1,615.2	148.9	58.7	201.5	158.7	510.5	518.3
1969	1,731.0	155.8	59.5	245.5	160.0	510.9	573.7
1970	1,541.9	127.0	65.5	188.7	132.3	472.3	530.7
1971	1,616.8	122.7	62.4	200.2	118.3	500.5	595.4
1972	1,915.6	158.8	62.4	236.6	143.8	595.8	685.8
1973	2,113.2	184.1	65.9	247.6	147.8	680.0	735.4
1974	1,855.4	200.4	58.1	220.1	114.6	617.3	585.5
1975	1,455.2	146.5	42.9	159.7	90.7	461.4	496.1
1976	1,971.1	170.3	41.3	203.4	121.8	606.5	721.7
1977	2,153.4	186.6	33.3	228.0	145.2	682.6	763.0
1978	2,286.8	210.9	34.9	238.5	148.6	799.8	718.1
1979	2,302.8	245.5	33.2	265.4	142.2	853.1	663.6
1980	1,689.8	200.0	33.1	217.2	105.9	633.8	429.2
1981	1,819.8	207.3	30.8	209.2	82.3	704.1	452.7
1982	1,605.3	159.0	19.5	161.9	77.2	624.2	434.0
1983	1,822.0r	184.4r	13.6r	175.2r	74.9r	768.6r	490.0r
1984	1,830.5	242.8	17.8	255.3	74.2	606.7	561.3

(1) Total includes small amounts of "other" castings not shown separately

SOURCE: U.S. Department of Commerce, Bureau of the Census, Industry Division

** Prior to 1963, consult the Aluminum Statistical Review—Historical Supplement.*

A unique combination of riveting and adhesive bonding give the aluminum-bodied HUMMER a rigid platform for its role as the Armed Forces newest multi-purpose vehicle. Jeep replacement, missile platform, ambulance are just a few of the missions to be assigned to this nimble four-wheeler. LTV Aerospace & Defense Company's AM General Division is the builder.

Market Shipment Highlights—1984

SHIPMENTS UP 9.0 PERCENT
Total industry shipments of aluminum in 1984 rose to a record level of 15,426 million pounds, up 9.0 percent from the volume of 14,153 million pounds in 1983. Total domestic shipments rose 11.1 percent while exports dropped 13.3 percent.

The largest increase occurred in the area of Transportation, up 25.6 percent from 1983.

Containers and Packaging continued as the industry's largest market in 1984 with a volume of 4,038 million pounds, or 26.2 percent of total shipments. Increased shipments for metal cans at 3,251 million pounds led this market's 3.1 percent growth over 1983. Semirigid food containers, household and institutional foil, caps & closures, collapsible tubes and many flexible packaging uses are other important components in this market.

Building and Construction, at 2,856 million pounds, decreased 0.5 percent from a 1983 volume of 2,870 million pounds. Included in this market are residential, industrial, commercial, farm and highway applications as well as mobile homes.

Shipments to the **Transportation** market increased to a volume of 2,939 million pounds, 25.6 percent higher than in 1983. Increased shipments for passenger cars, trucks and buses, trailers and semitrailers and recreational vehicles accounted for most of the rise.

Electrical market applications showed a 14.9 percent rise to a 1,492 million pound volume in 1984. Wire and cable products rose 6.9 percent.

Shipments to the **Consumer Durable** goods market experienced a 4.9 percent increase to a volume of 1,106 million pounds. Uses such as appliances, and air conditioning, showed increases.

Shipments to the nonelectrical **Machinery and Equipment** market of 825 million pounds were 5.9 percent above 1983 and accounted for 5.3 percent of the total. Uses include agricultural, construction and industrial machinery, irrigation pipe, ladders, fasteners and other general industrial equipment.

Exports of aluminum totaling 1,076 million pounds declined 13.3 percent below 1983 levels and accounted for 7.0 percent of total shipments.

The **average annual growth rate** for aluminum shipments in the 1974-1984 period was 1.8 pecent. 1984 marks the highest year in this decade.

The low point was 9,929 million pounds which occurred in the recession year 1975.

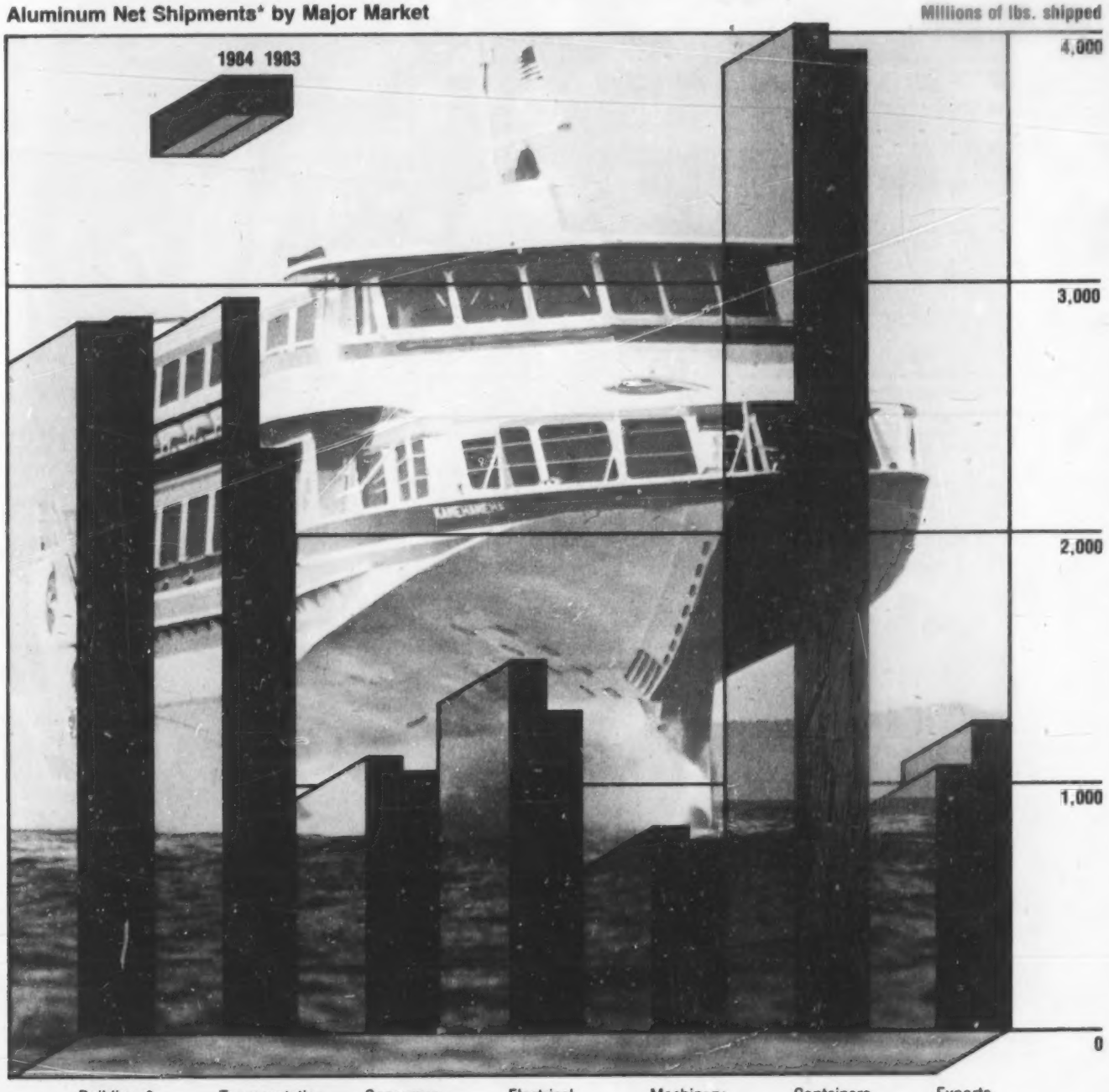
DESCRIPTION:
The Statistical and Marketing Research Committee of The Aluminum Association, Inc. has developed an annual breakdown of total aluminum industry shipments by major market since 1960. End use data on U.S. aluminum shipments are not available from government sources on a regular basis. Aluminum consumption figures for some industries are published by the U.S. Department of Commerce in the Census of Manufactures. The most recent such Census covers the year 1982.

In the United States the aluminum industry has identified its major markets as building and construction, transportation, consumer durables, electrical, machinery and equipment, containers and packaging, exports and other end uses. Each of these major markets has a wide range of end uses within it.

Tables on pages 13-17 show considerable detail on the major markets for 1974-1984. Page 20 also depict trends for 1974-1984 in selected markets where the Aluminum Association has marketing programs, or which are important aluminum markets.

For information on years prior to 1974 see the Aluminum Statistical Review—Historical Supplement.

Aluminum Net Shipments* by Major Market



Shipments by Major Market

Major Market	1984 % Distribution	1984 Amount	1983 % Distribution	1983 Amount	1984-1983 % Change	1974-1984 % Annual Growth
Building & construction	18.5	2,856	20.3	2,870r	−0.5	−0.7
Transportation	19.0	2,939	16.5	2,340r	+25.6	+0.4
Consumer durables	7.2	1,106	7.4	1,054r	+4.9	−0.2
Electrical	9.7	1,492	9.2	1,298r	+14.9	−1.2
Machinery & equipment	5.3	825	5.5	779r	+5.9	−1.5
Containers & packaging	26.2	4,038	27.7	3,918	+3.1	+6.1
Other (inc. statistical adjustment)***	7.1	1,094	4.6	653r	+67.5	+5.0
Domestic, total	93.0	14,350	91.2	12,912r	+11.1	+1.5
Exports	7.0	1,076	8.8	1,241	−13.3	+5.4
INDUSTRY TOTAL	100.0	15,426	100.0	14,153r	+9.0	+1.8

N.A. Not applicable

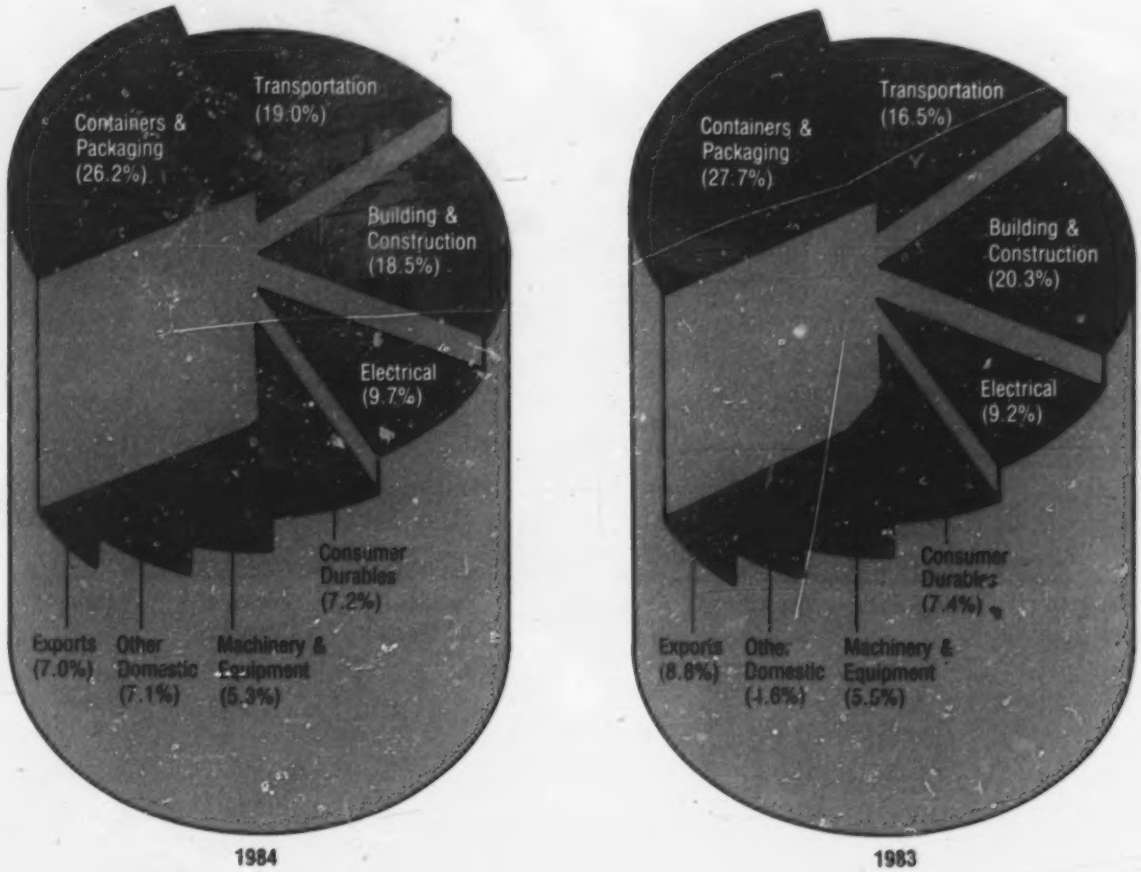
r — Revised

** "Net Shipments" exclude intra-industry shipments for further fabrication. It is the most accurate measure of industry output to markets because it eliminates duplication. Reported receipts of aluminum for further processing are eliminated.*

*** "Statistical Adjustment" accounts for net shipmments of aluminum reported by the Bureau of the Census which the Aluminum Association believes were either over or understated in the amounts indicated due to excessive or insufficient reporting of receipts. The addition of the statistical adjustments reconciles the amounts reported by the Bureau of the Census with the net-shipments that the Aluminum Association feels are more correct.*

SOURCE: Estimated by the Statistical and Marketing Research Committee of the Aluminum Association, Inc.

Distribution of Aluminum Net Shipments* by Major Market



Product Net Shipments* by Major Market
1974-1984

Millions of pounds

	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
Total Aluminum											
Building & construction	2,856	2,870r	2,257r	2,553	2,624	3,058	3,226	3,010	2,824	2,225	3,135
Transportation	2,939	2,340r	1,836r	2,204	2,247	3,120	3,157	2,913	2,476	1,709	2,382
Consumer durables	1,106	1,054r	822r	1,000	892	1,055	1,205	1,077	1,047	756	1,153
Electrical	1,492	1,298r	1,157r	1,351	1,405	1,588	1,502	1,362	1,274	1,216	1,836
Machinery & equipment	825	779r	704r	881	844	985	1,056	928	906	648	1,037
Containers & packaging	4,038	3,918	3,568	3,512	3,334	3,223	3,141	2,780	2,585	2,014	2,280
Other	612	576r	526r	645	600	652	660	597	592	544	745
**Statistical adjustment	+482	+77r	+340r	+298	+212	+163	−269	−394	−100	+12	+235
Domestic, total	14,350	12,912r	11,210r	12,444	12,158	13,844	13,678	12,273	11,604	9,124	12,803
Exports	1,076	1,241	1,295	1,370	2,193	1,023	747	713	821	805	927
Aluminum Total	15,426	14,153r	12,505r	13,814	14,351	14,867	14,425	12,986	12,425	9,929	13,730
Ingot (1)											
Building & construction	102	91r	86	90	86	114	109	110	104	164	238
Transportation	1,292	1,085r	888	1,017	960	1,349	1,311	1,260	1,149	829	994
Consumer durables	301	275r	259	291	265	350	374	351	343	257	351
Electrical	196	170r	165	190	176	224	213	198	188	220	264
Machinery & equipment	290	256r	249	293	274	354	363	311	299	231	332
Containers & packaging	18	20	15	22	20	15	11	9	12	10	23
Other	273	248r	227	313	294	343	344	312	311	289	358
**Statistical adjustment	+464	+87	+384r	+314	+204	+119	−306	−367	−178	—	+195
Domestic, total	2,936	2,132	2,273r	2,530	2,279	2,868	2,419	2,184	2,228	2,000	2,755
Exports	594	813	817	706	1,445	419	253	204	312	378	423
Ingot Total	3,530	3,045	3,090r	3,236	3,724	3,287	2,672	2,388	2,540	2,378	3,178
Mill Products											
Building & construction	2,754	2,779r	2,171r	2,463	2,538	2,944	3,117	2,900	2,720	2,061	2,897
Transportation	1,647	1,255r	948r	1,187	1,287	1,771	1,846	1,653	1,327	880	1,388
Consumer durables	805	779r	563r	709	627	705	831	726	704	499	802
Electrical	1,296	1,128r	992r	1,161	1,229	1,364	1,289	1,164	1,086	996	1,572
Machinery & equipment	535	523r	455r	588	570	631	693	617	607	417	705
Containers & packaging	4,020	3,898	3,553	3,490	3,314	3,208	3,130	2,771	2,573	2,004	2,257
Other	339	328r	299r	332	306	309	316	285	281	255	387
**Statistical adjustment	+18	−10r	−44	−16	+8	+44	+37	−27	+78	+12	+40
Domestic, total	11,414	10,680r	8,937r	9,914	9,879	10,976	11,259	10,089	9,376	7,124	10,048
Exports	482	428	478	664	748	604	494	509	509	427	504
Mill Products Total	11,896	11,108r	9,415r	10,578	10,627	11,580	11,753	10,598	9,885	7,551	10,552

NOTE: Total mill products are net shipments of aluminum mill products as reported by domestic producers to the U.S. Department of Commerce, plus imported mill products, less receipts of these imports by domestic producers.

Product Net Shipments* by Major Market

Product Net Shipments* by Major Market 1974-1984

Millions of Pounds

	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
Sheet											
Building & construction	1,295	1,424	1,022	1,190	1,250	1,597	1,749	1,611	1,582	1,147	1,667
Transportation	720	567r	386	499	499	824	932	865	669	352	591
Consumer durables	411	437r	295	380	333	353	424	375	387	287	472
Electrical	264	218r	186	242	199	243	239	229	214	131	246
Machinery & equipment	285	285r	229	282	258	267	313	265	249	155	278
Containers & packaging	3,395	3,275	2,977	2,869	2,693	2,559	2,488	2,169	1,971	1,501	1,670
Other	63	82r	65	74	64	74	82	64	58	61	73
**Statistical adjustment	−3	+15	+15	−4	−11	+11	+8	+28	+50	+38	+22
Domestic, total	6,430	6,303r	5,175r	5,532	5,285	5,928	6,235	5,606	5,180	3,672	5,019
Exports	373	296	296	368	375	374	265	323	322	230	338
Sheet Total	6,803	6,599r	5,471	5,900	5,660	6,302	6,500	5,929	5,502	3,902	5,357
Plate											
Building & construction	1	1	1	1	1	1	1	1	1	1	1
Transportation	218	155r	151	179	216	220	190	160	146	161	197
Consumer durables	1	1	1	1	1	1	1	1	1	1	2
Electrical	4	4	4	18	5	10	10	7	6	10	15
Machinery & equipment	19	16	18	29	30	37	41	35	32	28	63
Containers & packaging	—	—	—	—	—	—	—	—	—	—	—
Other	13	13	14	12	13	12	10	11	10	9	17
**Statistical adjustment	—	—	—	—	—	—	—	—	—	—	—
Domestic, total	256	190r	189	240	266	281	253	215	196	210	295
Exports	30	23	27	43	51	30	27	21	21	46	29
Plate Total	286	213r	216	283	317	311	280	236	217	256	324
Foil											
Building & construction	38	38	26	35	29	38	37	33	25	21	31
Transportation	49	45	29	32	31	41	45	38	25	16	16
Consumer durables	134	106	77	112	84	112	122	95	83	39	69
Electrical	20	22	19	25	23	30	27	25	23	14	26
Machinery & equipment	17	16	14	17	16	20	21	14	15	12	16
Containers & packaging	620	613	570	614	614	640	633	597	597	501	583
Other	7	5r	3	8	5	3	1	1	2	4	4
**Statistical adjustment	—	—	—	—	—	—	—	—	—	—	—
Domestic, total	885	845r	738	843	802	884	886	803	770	607	745
Exports	12	11	13	21	38	21	12	13	14	10	17
Foil Total	897	856r	751	864	840	905	898	816	784	617	762
Extruded Shapes											
Building & construction	1,324	1,233r	1,045r	1,163	1,176	1,215	1,235	1,163	1,019	812	1,074
Transportation	469	345	270r	325	390	499	491	427	350	234	424
Consumer durables	134	103	79r	88	96	117	133	106	94	70	109
Electrical	100	74	71r	76	88	106	101	89	94	78	117
Machinery & equipment	85	75	71r	80	88	108	115	88	81	72	84
Containers & packaging	1	3	—	—	—	1	—	—	—	—	—
Other	76	75	72r	63	37	28	24	31	43	33	48
**Statistical adjustment	—	—	—	—	—	—	—	—	—	—	—
Domestic, total	2,189	1,908r	1,608r	1,795	1,875	2,074	2,099	1,904	1,681	1,299	1,856
Exports	11	10	9	9	25	22	17	9	10	14	18
Extruded Shapes Total	2,200	1,918r	1,617r	1,804	1,900	2,096	2,116	1,913	1,691	1,313	1,874

Product Net Shipments* by Major Market
1974-1984

Millions of Pounds

	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
Extruded Pipe & Tube											
Building & construction	33	25r	31	23	23	31	29	31	33	27	42
Transportation	35	26r	16r	20	16	18	24	21	18	14	18
Consumer durables	44	31r	25	22	24	21	28	22	18	13	19
Electrical	67	59r	49	51	62	37	41	44	46	35	56
Machinery & equipment	15	14r	16r	21	26	29	35	45	53	31	65
Containers & packaging	—	—	—	—	—	—	—	—	—	—	—
Other	7	6r	3	4	4	2	2	2	3	3	6
**Statistical adjustment	−25	−30	−50	−27	−29	—	—	—	—	—	—
Domestic, total	176	131r	90r	114	126	138	159	165	171	123	206
Exports	9	9	12	14	15	15	18	20	19	14	15
Extruded Pipe & Tube Total	185	140r	102r	128	141	153	177	185	190	137	221
Drawn Tube											
Building & construction	3	3	2	3	3	3	3	4	3	3	6
Transportation	9	6	5	8	11	17	18	17	15	10	12
Consumer durables	17	22	21	28	28	34	40	40	41	26	38
Electrical	8	9	9	9	10	10	13	13	13	10	14
Machinery & equipment	14	17	17	19	20	21	21	20	23	13	34
Containers & packaging	—	—	—	—	—	—	1	—	—	—	—
Other	4	7	6	7	8	10	10	9	2	3	5
**Statistical adjustment	—	—	—	—	—	—	—	—	—	—	—
Domestic, total	55	64	60	74	80	95	106	103	97	65	109
Exports	1	1	1	1	1	1	1	1	1	1	1
Drawn Tube Total	56	65	61	75	81	96	107	104	98	66	110
Welded Tube											
Building & construction	1	1	1	2	2	2	3	2	2	2	3
Transportation	—	—	—	1	1	1	3	2	1	1	1
Consumer durables	38	52	45	54	36	41	58	62	53	40	55
Electrical	2	3	3	4	4	4	5	5	6	4	5
Machinery & equipment	15	14	13	46	41	44	47	69	81	52	73
Containers & packaging	—	—	—	—	—	—	—	—	—	—	—
Other	1	1	1	3	2	2	2	2	1	1	1
**Statistical adjustment	+3	−15	−15	+4	+11	−11	−8	−28	−50	−38	−22
Domestic, total	60	56	48	114	97	83	110	114	94	62	116
Exports	—	—	—	—	—	—		—	—	—	1
Welded Tube Total	60	56	48	114	97	83	110	114	94	62	117
Rod & Bar (2)											
Building & construction	27	25	23	25	29	29	33	28	29	25	31
Transportation	45	40	29	31	35	40	44	35	34	28	37
Consumer durables	15	17	11	13	15	15	16	14	14	11	20
Electrical	85	72r	66	92	97	93	85	67	73	55	85
Machinery & equipment	53	54	46	52	51	53	52	41	39	31	45
Containers & packaging	—	—	—	—	1	1	—	—	—	—	—
Other	29	21r	24	20	26	26	31	27	25	29	42
**Statistical adjustment	+55	+49r	+34	+51	+109	+84	+68	—	+97	+30	+40
Domestic, total	309	278r	233	284	363	341	329	212	311	209	300
Exports	22	24	52	103	137	62	60	28	55	52	47
Rod & Bar Total	331	302r	285	387	500	403	389	240	366	261	347

Product Net Shipments* by Major Market

Product Net Shipments* by Major Market 1974-1984

Millions of pounds

	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
Bare Wire											
Building & construction	31	28	19	20	24	27	26	26	25	22	41
Transportation	9	4	4	4	5	8	8	8	6	5	7
Consumer durables	5	5	4	5	5	6	6	8	10	9	13
Electrical	9	8	8	9	11	11	10	11	10	11	21
Machinery & equipment	15	16	16	22	21	28	29	24	22	14	28
Containers & packaging	4	7	6	7	6	7	8	5	5	2	4
Other	2	2	3	3	4	6	4	4	3	3	4
**Statistical adjustment	—	−.9r	−18	−23	−60	−25	−22	−12	−16	−18	—
Domestic, total	75	51r	42	47	16	68	69	74	65	48	118
Exports	6	10	12	25	58	30	24	15	19	21	16
Bare Wire Total	81	61r	54	72	74	98	93	89	84	69	134
ACSR & Bare Cable											
Building & construction	—	—	—	—	—	—	—	—	—	—	—
Transportation	—	—	—	—	—	—	—	—	—	—	—
Consumer durables	—	—	—	—	—	—	—	—	—	—	—
Electrical	341	324	299	311	367	387	335	295	294	399	534
Machinery & equipment	—	—	—	—	—	—	—	—	—	—	—
Containers & packaging	—	—	—	—	—	—	—	—	—	—	—
Other	—	—	—	—	—	—	—	—	—	—	—
**Statistical adjustment	—	—	—	—	+8	—	—	—	—	—	—
Domestic, total	341	324	299	311	375	387	335	295	294	399	534
Exports	5	35	46	68	25	31	55	57	28	27	9
ACSR & Bare Cable Total	346	359	345	379	400	418	390	352	322	426	543
Insulated or Covered Wire & Cable											
Building & construction	—	—	—	—	—	—	—	—	—	—	—
Transportation	—	—	—	—	—	—	—	—	—	—	—
Consumer durables	—	—	—	—	—	—	—	—	—	—	—
Electrical	393	332	275r	320r	359	428	419	376	304	245	446
Machinery & equipment	—	—	—	—	—	—	—	—	—	—	—
Containers & packaging	—	—	—	—	—	—	—	—	—	—	—
Other	—	—	—	—	—	—	—	—	—	—	—
**Statistical adjustment	—	—	—	—	—	—	—	—	—	—	—
Domestic, total	393	332	275r	320r	359	428	419	376	304	245	446
Exports	1	1	1	2	4	—	1	1	—	1	—
Insulated Wire & Cable Total	393	333	276r	322r	363	428	420	377	304	246	446
Forgings											
Building & construction	1	1	1	1	1	1	1	1	1	1	
Transportation	87	62r	82	79	96	85	76	57	54	77	
Consumer durables	1	1	2	2	2	2	2	2	2	2	
Electrical	1	1	1	1	1	1	1	1	2	3	
Machinery & equipment	9	8	10	10	13	13	11	7	6	14	
Containers & packaging	—	—	—	—	—	—	—	—	—	—	
Other	12	13	10	11	8	9	9	12	14	12	
**Stastical adjustment	—	—	—	—	—	5	—	—	—	—	
Domestic, total	111	86r	106	104	123	116	100	80	79	109	
Exports	4	3	3	3	4	—	6	3	4	4	
Forgings Total	115	89r	109	107	127	116	106	83	83	113	

Product Net Shipments* by Major Market
1974-1984

Millions of pounds

	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
Impacts											
Building & construction	—	—	—	—	—	—	—	—	—	—	—
Transportation	6	5	5	6	4	5	6	4	6	5	8
Consumer durables	5	4	4	4	3	3	1	1	1	1	3
Electrical	2	2	2	3	3	4	3	2	2	2	4
Machinery & equipment	8	8	7	10	9	11	6	5	5	3	5
Containers & packaging	—	—	—	—	—	—	—	—	—	—	—
Other	8	9	7	7	7	8	5	3	3	3	6
**Statistical adjustment	—	—	—	—	—	—	—	—	—	—	—
Domestic, total	29	28	25	30	26	31	21	15	17	14	26
Exports	—	—	—	—	—	—	—	—	—	—	—
Impacts Total	29	28	25	30	26	31	21	15	17	14	26
Powder & Paste											
Building & construction	—	—	—	—	—	—	—	—	—	—	—
Transportation	—	—	—	—	—	—	—	—	—	—	—
Consumer durables	—	—	—	—	—	—	—	—	—	—	—
Electrical	—	—	—	—	—	—	—	—	—	—	—
Machinery & equipment	—	—	—	—	—	—	—	—	—	—	—
Containers & packaging	—	—	—	—	—	—	—	—	—	—	—
Other	117	94	89	121	125	130	136	122	119	92	169
**Statistical adjustment	−12	−10	−10	−17	−20	−15	−14	−15	−3	—	—
Domestic, total	105	84	79	104	105	115	122	107	116	92	169
Exports	8	5	6	7	16	14	14	15	17	7	9
Powder & Paste Total	113	89	85	111	121	129	136	122	133	99	178

* *"Net Shipments" exclude intra-industry shipments for further fabrication. It is the most accurate measure of industry output to markets because it eliminates duplication. Reported receipts of aluminum for further processing are eliminated.*

** *"Statistical Adjustment" accounts for net shipments of aluminum reported by the Bureau of the Census which the Aluminum Association believes were either over or understated in the amounts indicated due to excess, e or insufficient reporting of receipts. The addition of the statistical adjustments reconciles the amounts reported by the Bureau of the Census with the net-shipments that the Aluminum Association feels are more correct.*

r — Revised (NR) not reported by Census

(1) Includes primary and secondary ingot for castings, destructive uses and exports.

(2) Extruded rod & bar combined with rolled and continuous cast rod & bar from 1972 to present.

SOURCE: Estimated by the Statistical and Marketing Research Committee of the Aluminum Association, Inc.

Trends in Selected Markets

Trends in Selected Markets*
1974-1984

BUILDING & CONSTRUCTION — Millions of Pounds

	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
Windows, doors & screens, total	977	949r	748r	845	851	903	957	916	817	670	830
Ingot	37	33r	30	34	36	46	41	43	54	79	108
Total mill products	940	916r	718r	811	815	857	916	873	763	591	722
Sheet	152	154	108	131	118	130	157	114	117	81	108
Plate	1	1	1	1	1	1	1	1	1	—	1
Extruded shapes	756	733r	585r	651	665	695	725	727	618	488	580
Rod & Bar[1]	15	14	11	14	15	15	16	15	14	10	13
Bare wire	16	14	13	14	15	16	17	16	13	12	20
Awnings & Canopies, total	147	152	105	114	143	156r	177	145	137	93	152
Ignot	—	—	—	—	—	—	—	—	—	2	2
Total mill products	147	152	105	114	143	156	177	145	137	91	150
Sheet	122	130	86	93	121	131	150	122	117	73	127
Extruded shapes	22	19	16	18	19	21	23	19	16	14	18
Extruded pipe & tube	1	1	1	1	1	2	2	2	2	2	3
Drawn tube	1	1	1	1	1	1	1	1	1	1	1
Welded tube	1	1	1	1	1	1	1	1	1	1	1
Residential siding, total	325	381	262	324	376	488	494	509	521	393	531
Sheet	324	380	261	323	375	487	493	508	519	390	528
Extruded shapes	1	1	1	1	1	1	1	1	2	3	3
Mobile homes, total	183	217	161r	174	156	209	268	275	265	197	279
Ignot	5	5	4	4	3	5	5	5	5	7	11
Total mill products	178	212	157r	170	153	204	263	270	260	190	268
Sheet	111	140	106	115	102	144	192	196	197	148	213
Extruded shapes	67	72	51r	55	51	60	71	74	63	42	55
Bridge, street & highway, total	112	112r	95	93	101	128	125	123	121	107	178
Ingot	16	14r	13	12	12	16	15r	16r	16r	19	21r
Total mill products	96	98r	82	81	89	112	110	107	105	88	157
Sheet	52	61	47	48	52	66	68	63	61	46	100
Foil	1	1	1	1	1	1	1	—	—	—	—
Extruded shapes	20	19	15	16	18	22	20	20	20	21	27
Extruded pipe & tube	22	16r	18	15	17	22	20	23	23	19	28
Rod & bar[1]	1	1	1	1	1	1	1	1	1	2	2

Trends in Selected Markets*
1974-1984

TRANSPORTATION — **Millions of pounds**

	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
Trucks & buses, total	466	357r	273r	310	287	497	449	433	366	163	359
Ingot	212	183r	151	148	136	216	199	191	169	88	160
Total mill products	254	174	122r	162	151	281	250	242	197	75	199
Sheet	151	96	68	85	77	158	137	137	114	36	103
Plate	4	4	3	4	4	8	7	7	7	4	11
Foil	1	—	—	—	—	—	—	—	—	—	—
Rod & bar[1]	1	2	2	2	2	5	5	3	2	1	2
Extruded shapes	60	49	32r	45	44	69	64	63	52	24	57
Extruded pipe & tube	1	1	1r	1	1	1	1	—	—	—	1
Drawn tube	1	1	1	1	1	1	1	1	1	—	—
Bare wire	—	—	—	—	—	1	1	1	—	—	1
Forgings	34	20	14	23	21	37	33	29	20	9	22
Impacts	1	1	1	1	1	1	1	1	1	1	2
Passenger cars, total[2]	1,414	1,192r	911	1,105	1,046	1,501	1,571	1,494	1,272	863	980
Ingot	980	830r	662	781	746	1,008	1,003	967	886	648	719
Total mill products	434	362	249	324	300	493	568	527	386	215	261
Sheet	284	235	156	199	180	333	392	378	264	124	154
Plate	1	1	1	1	1	1	2	—	1	—	—
Foil	43	40	26	28	24	36	41	35	22	14	12
Rod & bar[1]	18	19	9	9	10	11	11	11	12	9	12
Extruded shapes	43	34	37	59	61	73	77	58	51	42	54
Extruded pipe & tube	22	18r	9	13	9	10	14	14	11	7	9
Drawn tube	5	3	1	4	7	12	13	13	10	6	7
Bare wire	4	1	1	1	1	1	1	1	1	1	2
Forgings	12	10	8	8	6	14	14	14	9	8	7
Impacts	2	1	1	2	1	2	3	3	5	4	4
Trailers & semi-trailers, total	415	301r	174r	211	243	388	425	366	280	144	400
Ingot	31	20r	17	20	21	33	33	30	22	18	35
Total mill products	384	281	157r	191	222	355	392	336	258	126	365
Sheet	158	124	62	78	88	143	165	141	104	45	150
Plate	9	7	4	7	9	14	15	11	10	6	14
Rod & bar[1]	1	1	1	1	1	2	2	2	2	2	4
Extruded shapes	212	147	88r	103	122	194	208	179	140	71	192
Extruded pipe & tube	2	1	1	1	1	1	1	1	1	1	1
Bare wire	2	1	1	1	1	1	1	2	1	1	3
Forgings	—	—	—	—	—	—	—	—	—	—	1

Trends in Selected Markets

Trends in Selected Markets*
1974-1984

CONSUMER DURABLES											Millions of pounds
	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
Air conditioners, freezers, refrigerators, total	337	275	219	290	249	304	357	301	285	183	301
Ingot	32	30	25	33	29	38	39	35	32	26	32
Total mill products	305	245	194	257	220	266	318	266	253	157	269
Sheet	125	108	95	117	106	116	138	127	134	94	164
Foil	132	104	75	109	81	108	117	91	81	38	67
Extruded shapes	15	13	12	13	13	19	31	22	17	12	16
Extruded pipe & tube	30	16	11	14	12	13	13	13	11	8	12
Drawn tube	2	2	1	4	8	10	14	13	10	5	8
Rod & bar[1]	—	—	—	—	—	—	—	—	—	—	1
Bare wire	—	—	—	—	—	—	—	—	—	—	1
Portable appliances, total	53	55r	44	59	56	70	76	58	58	47	73
Ingot	31	30r	26	31	30	41	43	37	35	27	40
Total mill products	22	25	18	28	26	29	33	21	23	20	33
Sheet	18	21	14	23	22	24	27	16	18	16	28
Extruded shapes	2	2	3	3	2	2	2	2	2	2	3
Drawn tube	1	1	1	1	1	2	3	3	3	2	2
Rod & bar[1]	1	1	—	1	1	1	1	—	—	—	—
Cooking utensils, total	175	206r	136	171	161	152	171	138	163	135	169
Ingot	26	23r	21	26	24	27	28	25	26	24	29
Total mill products	149	183r	115	145	137	125	143	113	126	111	140
Sheet	144	177r	109	140	132	121	139	109	122	108	137
Plate	—	—	—	—	—	—	—	—	—	—	—
Extruded shapes	4	4	4	4	4	3	3	3	3	2	2
Welded tube	—	—	—	—	—	—	—	—	—	—	1
Bare wire	1	1	1	1	1	1	1	1	1	1	—
CONTAINERS & PACKAGING											
Household & institutional foil, total	275	283	270	287	283	290	257	259	245	232	245
Metal cans total mill products	3,251	3,140	2,858	2,725	2,583	2,445	2,349	2,051	1,851	1,411	1,540
Sheet	3,251	3,140	2,858	2,725	2,583	2,445	2,349	2,051	1,851	1,411	1,540
Semi-rigid food containers Total mill products	173	158	134	153	160	159	176	168	166	150	156
Sheet	33	21	19	38	20	22	23	15	15	9	13
Foil	140	137	115	115	140	137	153	153	151	141	143

r — revised

** — These "selected markets" represent either those in which The Aluminum Association has marketing programs, or which are important aluminum market categories. They only account for a portion of aluminum shipments to each major market.*

(1) Extruded rod and bar combined with rolled and continuous cast and rod bar.

(2) Shipments to "Passenger Cars" cover new domestic automobile production, spare parts, accessories and after-market parts. Shipments for light trucks and vans are included in Trucks and Buses.

NOTE: For information on years prior to 1974, see the Aluminum Statistical Review—Historical Supplement.

SOURCE: Estimated by the Statistical and Marketing Research Committee of the Aluminum Association, Inc.

U.S. Aluminum Supply

The U.S. aluminum supply increased 2,393 million pounds in 1984 to a total of 15,951 million pounds. This represents a 17.7 percent increase compared to the 1983 supply level. Primary production at 9,037 million pounds was 22.2 percent higher than the 7,393 million pounds produced in 1983.

Primary imports of 1,944 million pounds were 18.8 percent above the 1983 level of 1,637 million pounds. Imports of mill products increased 76.1 percent to 1,090 million pounds during 1984 as compared to 619 million pounds in 1983.

Import data for both years reflect the reimports of metal exported for processing and returned to further processing in accordance with tariff arrangements under TSUSA 806.30 (Tariff Schedules of the United States Annotated).

Secondary recovery (domestic and imports) was 3,880 million pounds. The graph on page 22 illustrates the relative change in the portions of total aluminum supplies from each source for the years 1974 through 1984.

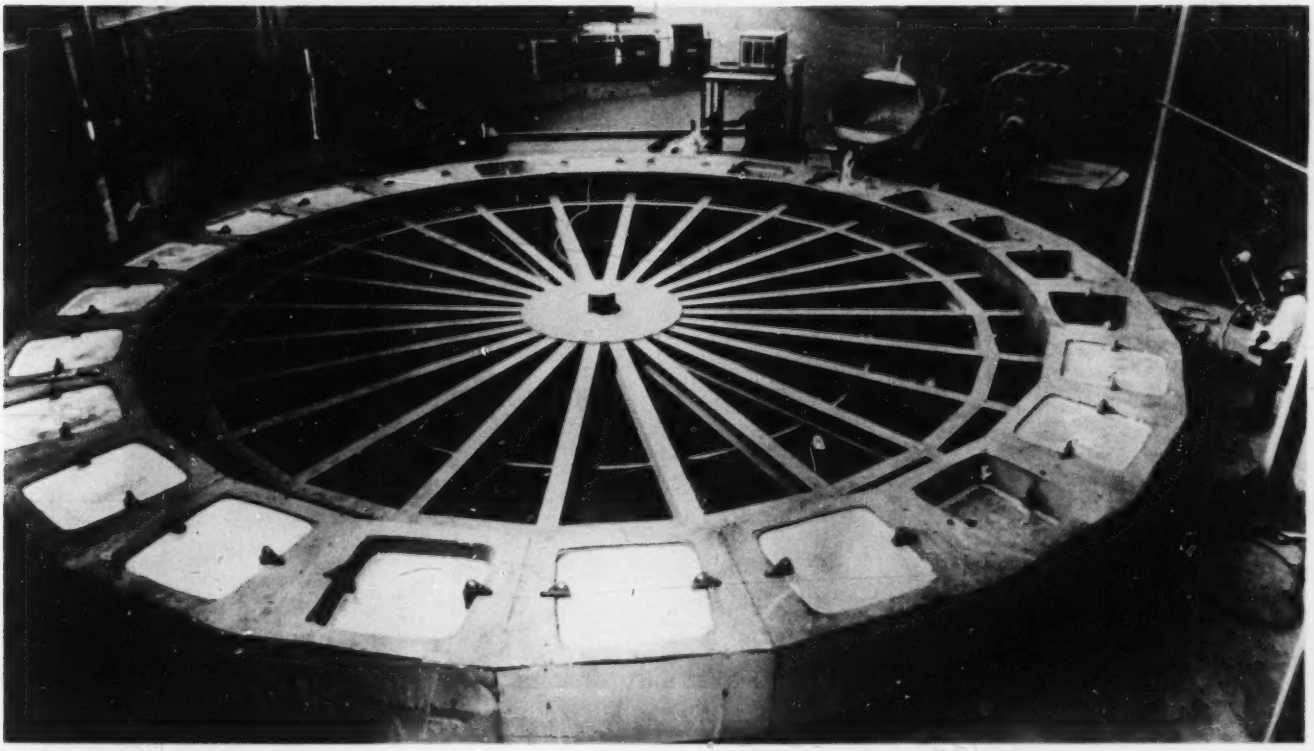
The table on page 23 details the total supply of aluminum and its principal sources for the years 1942 through 1984 before any adjustments for stockpile deliveries or withdrawals. The significance of the stockpile and its effect on total supply are described on page 24.

The growth of U.S. primary aluminum production over the past decade is outlined on the graph and detailed in the table on page 25.

Installed capacity by company is presented for the years 1974 through 1984 on page 26. The 1984 year-end primary aluminum capacity in the U.S. was 5,249,000 short tons, down 4.7% from 1983.

Aluminum recovery from scrap is an important contributor to the total aluminum supply. Data showing the increase in this source of supply for the years 1946 through 1984 are presented on pages 30 and 31.

Molten aluminum fresh from the reduction pot is cast into 1200-pound sows.



Total Supply

1984 SUPPLY UP 17.7 PERCENT

Total supply increased 17.7 percent to 15,951 million pounds in 1981.

Changes vs. 1983	
Primary production	+22.2%
Imports, Primary	+18.8%
Imports, Mill Products	+76.1%
Secondary Recovery	−0.7%

Since 1974 the total supply has expanded at an average rate of 1.6 percent a year, affected mostly by two recessions in this period. In 1984 primary production represented 57 percent of total supply; imports accounted for 19 percent; and secondary recovery represented 24 percent.

In the ten years 1974-1984, secondary recovery grew at a 4.3 percent annual rate, while primary reduction decreased at a 0.7 percent annual rate.

DESCRIPTION

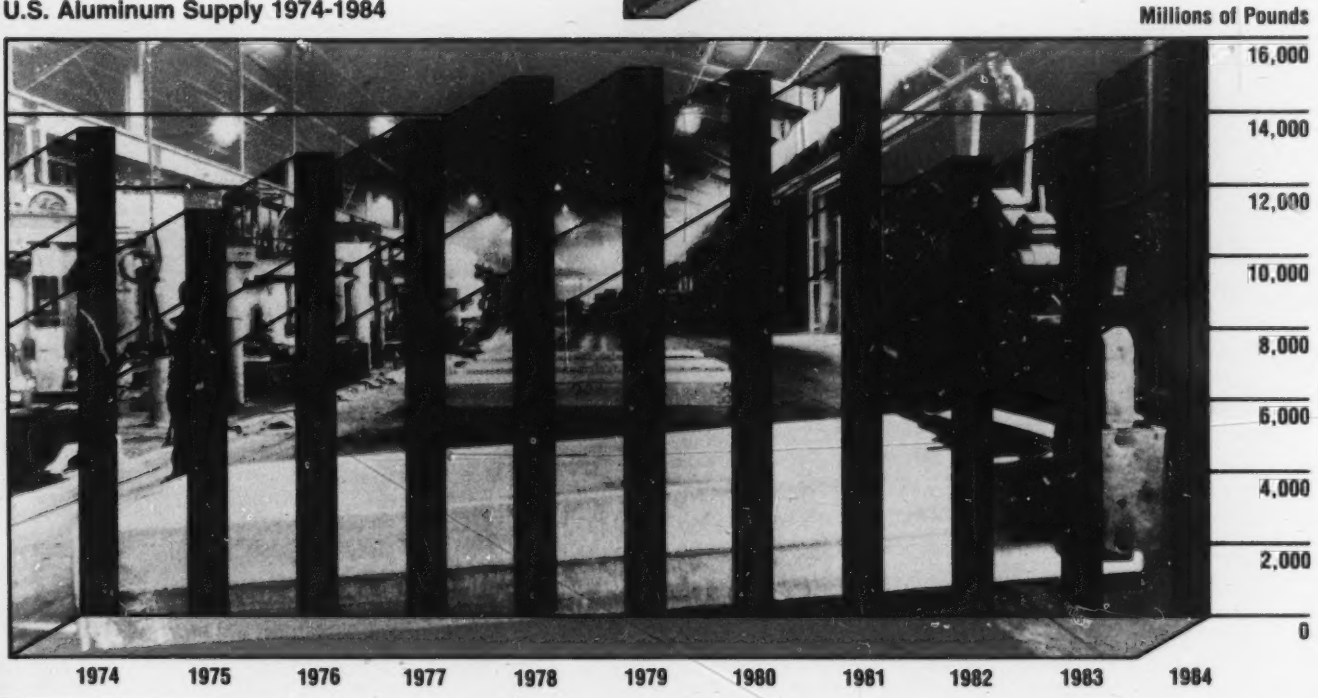
United States supply of aluminum consists of domestic primary production, imports of primary and mill products, and metal recovered from scrap. No adjustment is made in this presentation for shipments to or withdrawals from the government stockpile. This is shown on page 24.

Detailed data on United States supply of aluminum from 1942 to 1984 are shown in the table on page 23.

For a picture of domestic primary production, see page 25. For the relationship of domestic primary production to world production, see pages 44-45. For a breakdown of imports, see pages 38-39. For further information on secondary recovery, see pages 30 and 31.

Secondary Recovery
Imports
Primary Production

U.S. Aluminum Supply 1974-1984



Total Supply
1942-1984

Millions of Pounds

Year	Total Supply	Domestic Primary Production	Imports			Secondary Recovery		
			Total	Primary[1]	Mill Products[3]	Total	Domestic[2]	Imported Scrap[1][2]
1942	1,660	1,042	225	213	12	393	393	(a)
1943	2,739	1,840	271	271	(a)	628	628	(a)
1944	2,409	1,553	202	201	1	654	651	3
1945	2,268	990	672	665	7	606	597	9
1946	1,486	819	85	83	2	582	556	26
1947	1,893	1,144	31	31	(a)	718	690	28
1948	2,128	1,247	178	166	12	703	574	129
1949	1,812	1,207	171	155	16	434	362	72
1950	2,423	1,437	377	354	23	609	487	122
1951	2,581	1,674	286	245	41	621	585	36
1952	2,786	1,875	289	256	33	622	609	13
1953	3,957	2,504	668	602	66	785	737	48
1954	4,034	2,921	472	443	29	641	626	15
1955	4,439	3,131	441	395	46	867	828	39
1956	4,746	3,358	511	462	49	877	856	21
1957	4,703	3,295	494	451	43	914	890	24
1958	4,429	3,131	572	511	61	726	708	18
1959	5,416	3,908	590	480	110	918	898	20
1960	5,306	4,029	392	309	83	885	876	9
1961	5,295	3,807	507	398	109	981	970	11
1962	6,163	4,236	751	622	129	1,176	1,164	12
1963	6,874	4,625	924	831	93	1,325	1,308	17
1964	7,435	5,105	901	788	113	1,429	1,414	15
1965	8,414	5,509	1,198	1,055	143	1,707	1,658	49
1966	9,075	5,937	1,302	1,047	255	1,836	1,775	61
1967	9,378	6,539	1,028	899	129	1,811	1,756	55
1968	10,080	6,510	1,508	1,371	137	2,062	1,994	68
1969	11,004	7,586	1,066	937	129	2,352	2,300	52
1970	10,912	7,952	894	700	194	2,066	2,000	66
1971	11,345	7,850	1,282	1,109	173	2,213	2,100	113
1972	12,005	8,245	1,508	1,319	189	2,252	2,252	(2)
1973	12,697	9,058	1,154	1,016	138	2,485	2,485	(2)
1974	13,499	9,807	1,128	1,016	110	2,564	2,564	(2)
1975	11,229	7,758	999	868	131	2,472	2,472	(2)
1976	12,785	8,503	1,340	1,151	189	2,942	2,942	(2)
1977	13,792	9,077	1,505	1,340	165	3,210	3,210	(2)
1978	14,954	9,608	2,000	1,516	484	3,346	3,346	(2)
1979	15,168	10,046	1,568	1,142	426	3,554	3,554	(2)
1980	15,064	10,259	1,329	1,161	168	3,476	3,476	(2)
1981	15,567	9,896	1,725	1,421	304	3,946	3,946	(2)
1982	12,703	7,217	1,814	1,359	456	3,672	3,672	(2)
1983	13,558r	7,393	2,256	1,637	619	3,909r	3,909r	(2)
1984	15,951	9,037	3,034	1,944	1,090	3,880	3,880	(2)

r — Revised *Detail may not add to totals due to rounding*

p — preliminary

(a) Less than 0.5 million pounds

(1) Some imports of "starter" metal, classified by the Bureau of The Census in 1954-1957 as scrap, have here been classified as primary metal, as estimated by the Department of Commerce.

(2) Domestic secondary data are recoverable metal content for estimated total scrap consumption, as estimated by the Bureau of Mines. Before 1972 total supply included both domestic secondary recovery and an estimated 90 percent recovery from reported scrap imports. Beginning in 1972 the Bureau of Mines required reporting of imported scrap recovery data and these data are included in the domestic secondary recovery figures beginning with that year.

(3) Starting in 1970, includes reimports of metal exported for processing and returned for further processing (TSUSA 806.30)

SOURCE: U.S. Department of Commerce, Bureau of the Census, Department of Interior, and Bureau of Mines.

U.S. Suppliers' Inventories

INVENTORIES UP 17.1 PERCENT

The Bureau of the Census began reporting U.S. Suppliers' aluminum inventory in 1968. The figures include all forms of scrap, ingot, metal in process and finished products. During 1984 inventories increased by 855 million pounds to a year-end inventory of 5,849 million pounds.

U.S. Suppliers' Inventories 1974-1984

Millions of pounds at end of year

Year*	Total	Type of Supplier: Integrated	Non Integrated	Secondary Smelter
1974	5,156	4,202	753	201
1975	5,999	5,199	598	202
1976	5,701	4,781	687	234
1977	5,706	4,778	687	241
1978	5,494	4,460	776	258
1979	5,125	4,124	768	233
1980	5,076	4,018	797	261
1981	6,607	5,524	798	266
1982	6,199	5,224	759	216
1983	4,994r	3,979	853r	163
1984	5,849	4,691	929	229

Detail may not add due to rounding.

** Prior to 1974 consult the Aluminum Statistical Review—Historical Supplement.*

SOURCE: U.S. Department of Commerce. Bureau of the Census Current Industrial Report M33-2.

Total Supply Adjusted for Stockpile

The United States Government's aluminum stockpile, following World War II, was formed to provide the nation with a supply of aluminum for mobilization purposes. Since 1963, as a result of an agreement between major domestic aluminum producers, other interested aluminum enterprises and the U.S. Government, a program of orderly disposal of the stockpile ensued. By the end of 1976, the stockpile was essentially depleted. The data in the table represent the best figures available from different sources. Total supply, unadjusted for stockpile changes is on page 23.

Total Supply Adjusted for Stockpile 1974-1984

Millions of pounds

Year*	Total supply adjusted for stockpile	Total supply, all sources	Shipments from stockpile	Shipments to stockpile
1974	14,520	13,499	1,021	—
1975	11,234	11,229	5	—
1976	12,803	12,785	18	—
1977	13,792	13,792	—	—
1978	14,954	14,954	—	—
1979	15,168	15,168	—	—
1980	15,064	15,064	—	—
1981	15,567	15,567	—	—
1982	12,703	12,703	—	—
1983	13,558r	13,558r	—	—
1984	16,282	16,282	—	—

** Prior to 1974 consult the Aluminum Statistical Review—Historical Supplement.*

SOURCES: General Services Administration; U.S. Department of Commerce; Industry Sources

Production of Primary Aluminum

PRODUCTION UP 22.2 PERCENT

Primary aluminum production totaled 9,037 million pounds in 1984 vs. the production of 7,393 million pounds in 1983 in the decade 1974-1984, the average annual rate of change was −0.7 percent.

DESCRIPTION:

In the United States, primary production of aluminum was begun in 1888 by the Pittsburgh Reduction Company. Data on aluminum production started in 1893, covering the industry from its very early period.

Data for 1974-1984 are presented here for your review. Data prior to 1974 may be obtained from the Aluminum Statistical Review—Historical Supplement.

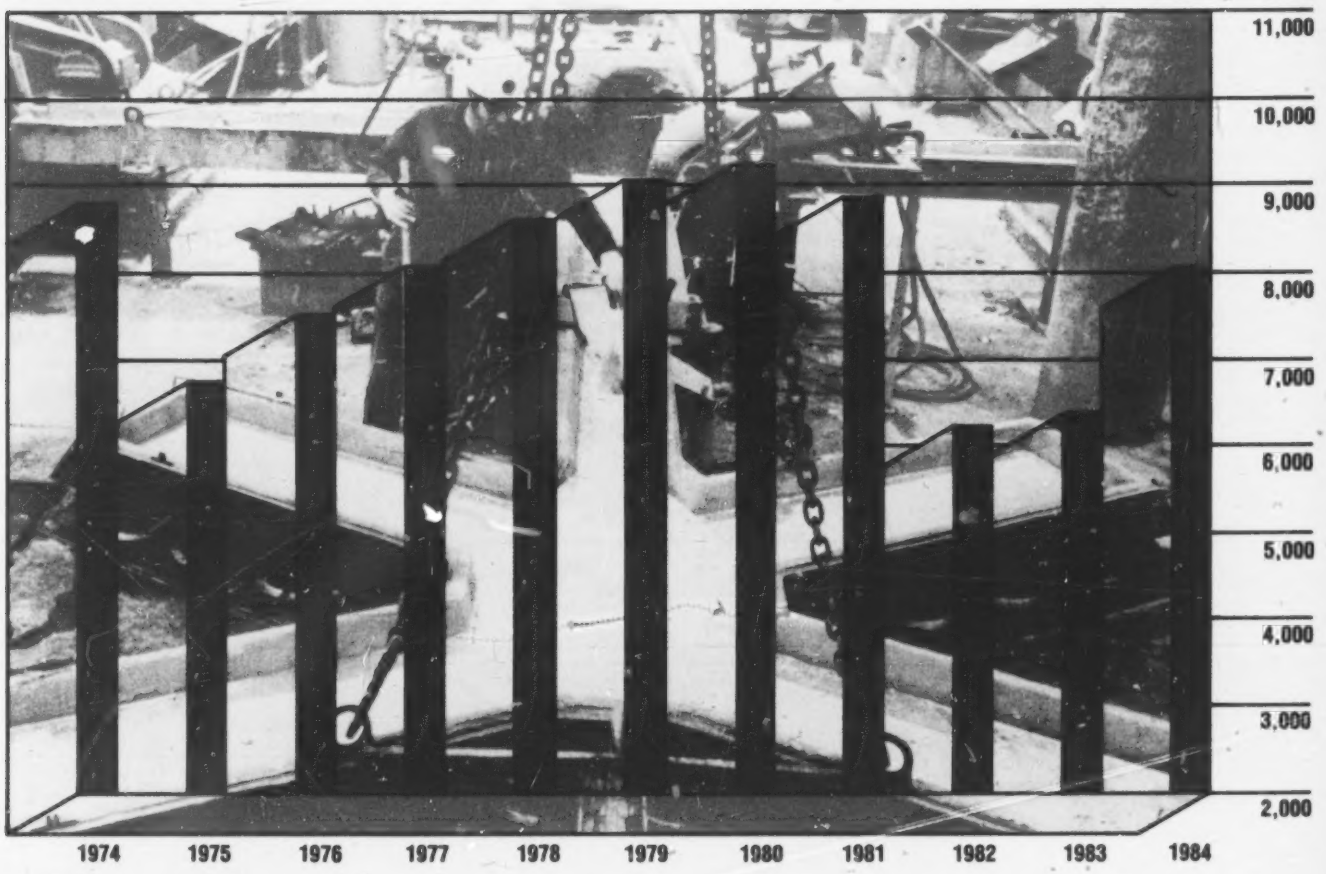
Production of Primary Aluminum in U.S.A. 1974-1984

Year*	Millions of pounds
1974	9,806.9
1975	7,758.3
1976	8,502.8
1977	9,077.4
1978	9,607.6
1979	10,046.2
1980	10,259.4
1981	9,895.9
1982	7,217.3
1983	7,392.6
1984	9,036.8

** Prior to 1974 consult the Aluminum Statistical Review—Historical Supplement.*

SOURCES: The Aluminum Association, Inc.

U.S. Primary Aluminum Production 1974-1984



SOURCE: the Aluminum Association

U.S. Primary Aluminum Capacity

CAPACITY DOWN 4.7 PERCENT

Total annual primary aluminum capacity as of December 31, 1984 was 5,249,000 tons.

The percentage distribution of U.S. primary capacity by company at year-end 1984 was: Alcoa, 30.0%; Reynolds, 16.4%; Alumax, 12.5%; Kaiser, 11.0%; ARCO, 6.9%; Consolidated, 6.1%; Martin Marietta Aluminum, 5.2%; Noranda, 4.3%; Revere, 3.9%; National Aluminum, 2.0%; and Southwire, 1.6%.

DESCRIPTION:

There were eleven domestic primary producing companies as of December 31, 1984. They were Aluminum Company of America, Alumax, Inc. ARCO Metals Company, Consolidated Aluminum Corporation (including 66% interest in Ormet), Kaiser Aluminum & Chemical Corporation, Martin Marietta Aluminum Incorporated, National Aluminum Company (54.5% interest in National-Southwire), Noranda Aluminum Incorporated, Revere Copper and Brass Incorporated (including 34% interest in Ormet), Reynolds Metals Company and Southwire Company (45.5% interest in National-Southwire).

U.S. Primary Aluminum Capacity[1]

Thousands of Short Tons

	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
Alcoa	1,576.0	1,576.0	1,576.0	1,725.0	1,725.0	1,700.0	1,700.0	1,675.0	1,675.0	1,575.0	1,575.0
Reynolds	861.0	975.0	975.0	975.0	975.0	975.0	975.0	975.0	975.0	975.0	975.0
Alumax	656.0	656.0	425.0	415.7	415.7	218.7	218.0	218.7	218.7	219.0	130.5
Kaiser	580.0	724.0	724.0	724.0	724.0	724.0	724.0	724.0	724.0	724.0	724.0
ARCO Aluminum[2]	360.0	360.0	360.0	360.0	360.0	360.0	300.0	300.0	300.0	300.0	300.0
Consolidated	322.2	324.2	360.2	352.0	352.0	352.0	352.0	352.0	352.0	352.0	342.0
Martin Marietta	275.0	275.0	275.0	210.0	210.0	210.0	210.0	210.0	210.0	210.0	205.0
Howmet[3]	—	—	228.2	218.7	218.7	218.7	218.7	218.7	218.7	217.5	217.5
Noranda	225.0	225.0	225.0	140.0	140.0	140.0	140.0	140.0	140.0	70.0	70.0
Revere	203.8	203.8	203.8	203.2	203.2	203.2	203.2	200.0	199.5	199.0	197.0
National Aluminum	103.5	95.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0
Southwire	86.5	95.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0
Total	5,249.0	5,509.0	5,532.2	5,503.6	5,503.6	5,281.6	5,224.4	5,193.4	5,192.9	5,021.5	4,916.0

NOTE: Prior to 1974 consult the Aluminum Statistical Review—Historical Supplement.

(1) Capacities shown are as reported for December 31. They include nominal ownership of plants owned by more than one company.

(2) Formally the Anaconda Company (Aluminum Division).

(3) Alumax acquired Howmet in 1983.

NOTE: Prior to 1974, consult the Aluminum Statistical Review—Historical Supplement.

SOURCE: The Aluminum Association, Inc.

Number of Plants in the U.S.

Number of Plants in the U.S.

SELECTED YEARS

PRODUCT	1982	1977	1967
Primary Ingot	32	32	24
Secondary Ingot	76	89	89
Sheet and Plate	68	49	57
Foil	27	27	26
Rod & Bar, Rolled and Continuous Cast	22	31	21
Wire, Bare, Conductor & Nonconductor	69	125	57
ACSR and Aluminum Cable, Bare	16	59	36
Wire & Cable, Insulated or Covered	43	90	61
Extruded Products	226	222	177
Drawn Tube	19	22	24
Welded Tube	18	32	21
Powder	17	18	19
Forgings	44	74	52
Impacts	16	29	na

na — Not available

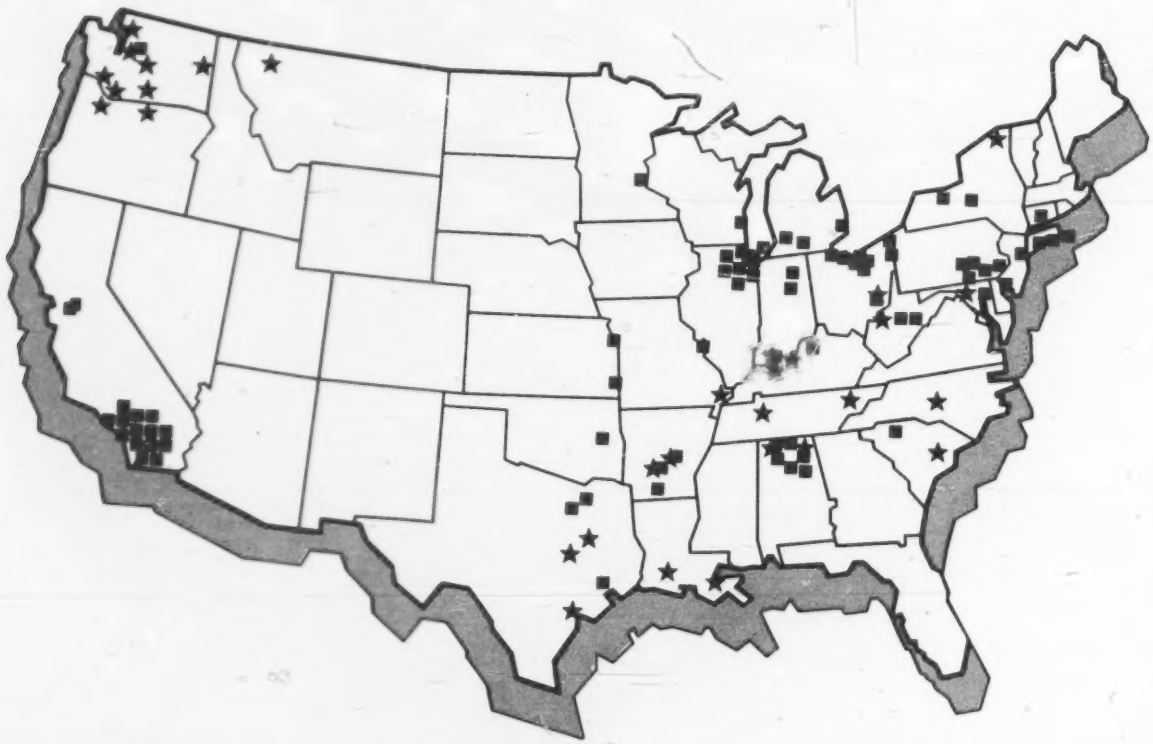
SOURCE: 1967 & 1977 U.S. Department of Commerce. 1982: The Aluminum Association

The data presented here are based on a survey conducted by the Aluminum Association in 1982. Previous years are based on unofficial directories prepared by the U.S. Department of Commerce, Bureau of Industrial Economics.

The figures shown for each product for selected years represent number of plants—not companies, which in many instances operate more than one plant. No totals are shown since some plants produce more than one product. Data include captive plants (plants producing only for company's own use).

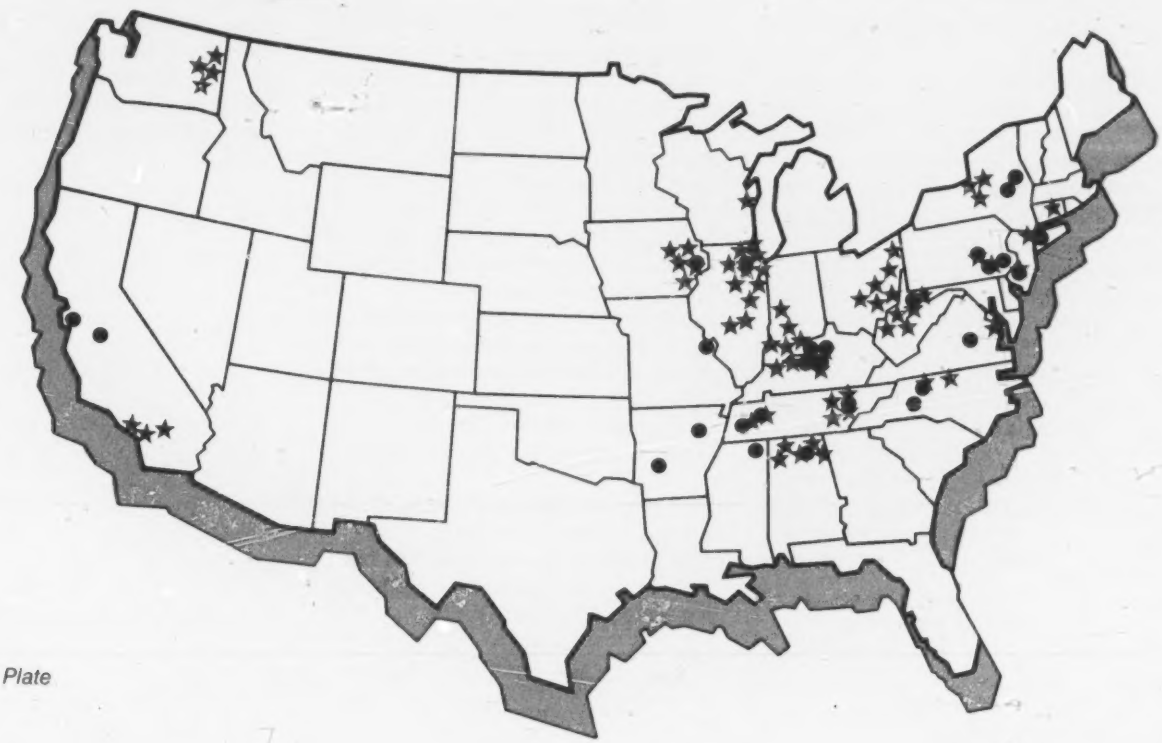
Five outline maps of the United States indicating the geographic distribution of aluminum plants by various product groups in 1982 are presented on pages 27-29.

For a detailed listing, contact the Aluminum Association for a copy of the U.S. Aluminum Industry Plant Directory (October, 1982). A revised edition will be published in 1985.

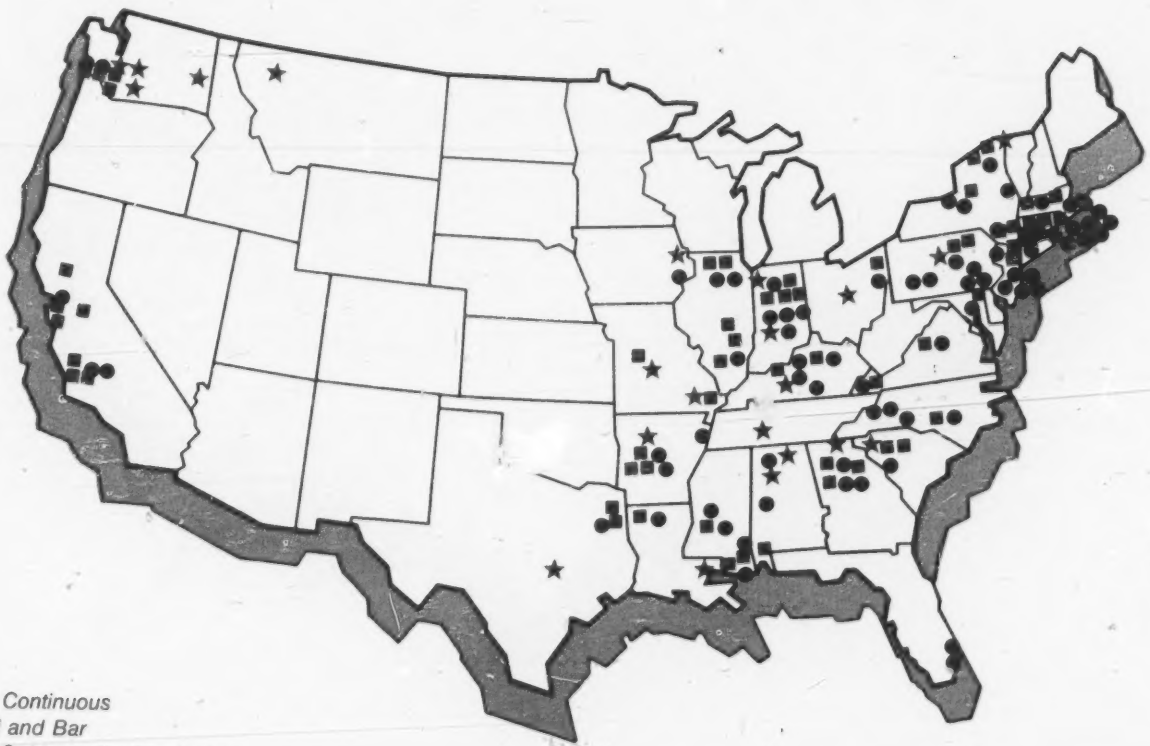


★ *Primary*
■ *Secondary*

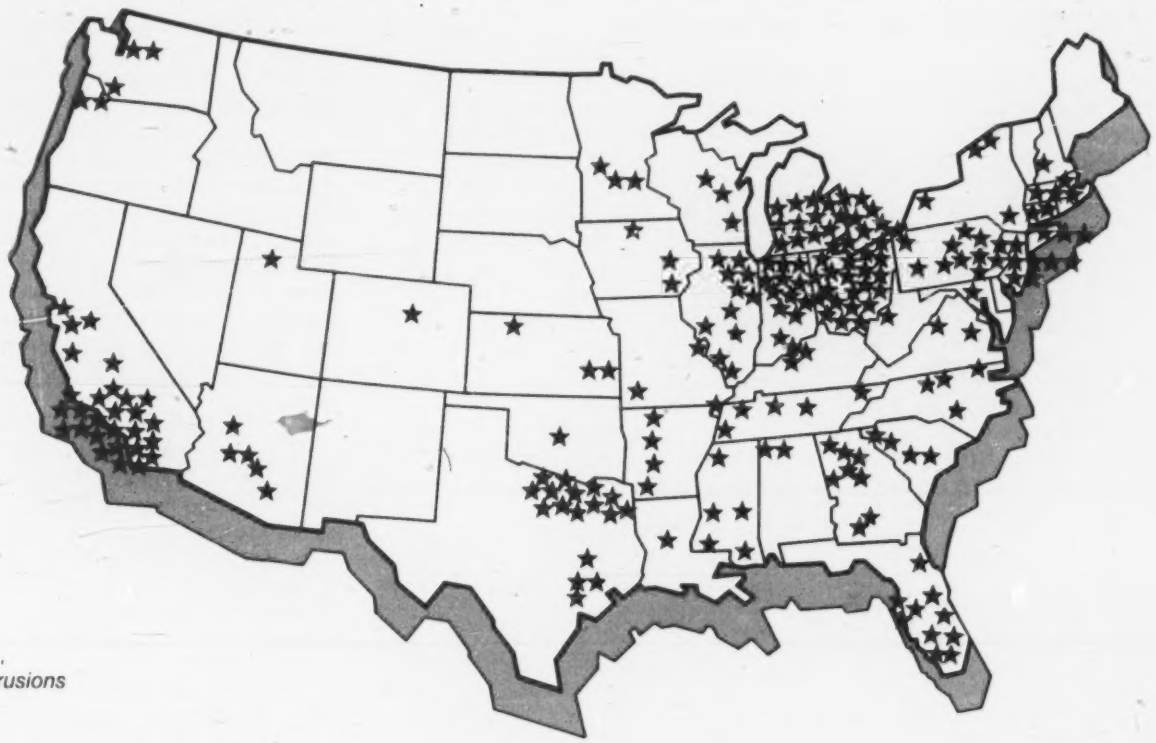
U.S. Plants — cont.



● *Foil*
★ *Sheet and Plate*



● *Bare Wire*
★ *Rolled and Continuous Cast Rod and Bar*
■ *ACSR and Cable and/or Insulated or Covered Wire and Cable*



★ *Extrusions*

■ *Forgings and/or Impacts*
● *Powder and Paste*
★ *Drawn and/or Welded Tube*

Aluminum Scrap Consumption and Recovery

SCRAP CONSUMPTION DOWN 0.4 PERCENT

Total domestic industry scrap consumption on a gross weight basis, decreased 0.4% in 1984 to 2,215,600 tons from the 1983 volume of 2,225,500 tons.

Secondary recovery totaled 1,940,000 tons with new scrap accounting for 53 percent and old scrap for 47 percent.

Old scrap recovery at 909,400 tons, up 0.6 percent from 1983. Reclamation from aluminum cans reached 613,000 tons, up 7.2 percent over 1983 accounting for 52.8% of can shipments.

DESCRIPTION:

Recovery of aluminum from scrap, an important source of supply, is shown on pages 30 and 31. Two sets of scrap data are tabulated. The scrap consumption figures are on a gross weight basis as reported by plants consuming scrap. The aluminum recovery figures are on a recovered metal basis, that is the content of aluminum base alloy recovered from gross weight consumed. The figures in this table are consistent with domestic secondary recovery on page 25.

The aluminum recovery data are shown by source, that is by new and old scrap. New scrap, generated by plants making end products, and old scrap recovered from metal that has been used by consumers, are returned to plants making ingot and mill products and thus add to the total metal supply.

Through 1954, data on scrap consumption and recovery are based on complete reporting. Beginning in 1955, reported figures are expanded to industry totals by the Bureau of Mines to allow for a number of firms who do not report. In 1961, sweated pig consumption data were improved and included in old scrap.

Recovery of new scrap and old scrap over the past ten years has been about 24 percent of total supply (25.9 perent in 1984). However, this figure does not include "run-around" scrap consumed by the generating companies.

These cans heading for the shredder were among the 31.9 billion recycled in 1984.

Aluminum Can Reclamation Data 1974-1984

Year	Pounds of Aluminum Collected (millions)	No. of Aluminum Cans Collected (billions)[3]	Percent of Aluminum Cans Collected[4]
1974	103[1]	2.3	17.5
1975	180[2]	4.1	26.9
1976	212[2]	4.9	24.9
1977	280[2]	6.6	26.4
1978	340[2]	8.0	27.4
1979	360[2]	8.5	25.7
1980	609[2]	14.8	37.3
1981	1,017[2]	24.9	53.2
1982	1,124[2]	28.3	55.5
1983	1,144[2]	29.4	52.9
1984	1,226[2]	31.9	52.8

(1) Represents total industry; includes an additional 18 million pounds in the year 1974 which accounts for all-aluminum cans collected by non-members of the Aluminum Association.

(2) SOURCE: Net receipts—U.S. Department of the Interior, Bureau of Mines.

(3) Calculation based on an Association can weight survey.

(4) Based on Can Manufacturers Institute aluminum beverage can shipments data logged one quarter.

Aluminum Scrap Consumption and Recovery
1946-1984

Short Tons

SCRAP CONSUMPTION		SCRAP CONSUMPTION (Gross Weight Basis) As Reported[6]				RECOVERY[5] (Recovered Metal Basis)		
Year	Total Industry[1]	Total	Secondary Smelters	Primary Producers[2][3]	Others[4]	Total Industry[1]	From New Scrap	From Old Scrap
1946	344,000	344,000	238,000	100,000	6,000	278,073	187,538	90,535
1947	411,070	411,070	312,087	90,009	8,974	344,837	180,990	163,847
1948	324,495	324,495	217,666	100,454	6,375	286,777	191,129	95,648
1949	199,039	199,039	128,472	65,602	4,965	180,762	136,166	44,596
1950	273,192	273,192	192,047	68,316	12,829	243,666	167,308	76,358
1951	332,296	332,296	232,339	80,463	19,494	292,608	216,017	76,591
1952	347,730	347,730	255,083	77,939	14,708	304,522	233,258	71,264
1953	413,333	413,333	276,279	116,011	21,043	368,566	289,626	78,940
1954	350,515	350,515	239,069	91,446	20,000	313,047	246,609	66,438
1955	490,000	427,045	313,879	86,739	26,427	414,000	314,500	99,500
1956	517,000	439,343	331,811	88,754	18,778	428,000	331,000	97,000
1957	532,000	463,000	345,000	94,000	24,000	445,000	347,500	97,500
1958	430,000	375,564	275,762	77,282	22,520	354,000	274,500	79,500
1959	539,000	475,964	384,506	62,917	28,541	449,000	345,000	104,000
1960	523,000	441,479	353,889	54,366	33,224	438,000	343,000	95,000
1961	579,000	498,116	331,705	44,572	121,839	485,000	329,500	155,500
1962	700,000	594,873	442,168	36,520	116,185	582,000	415,500	166,500
1963	780,000	647,489	493,168	44,885	109,436	654,000	495,000	159,000
1964	850,000	712,251	538,992	58,928	114,331	707,000	545,000	162,000
1965	970,000	816,620	579,844	94,985	141,791	829,000	624,000	205,000
1966	1,080,000	896,334	638,757	125,487	132,090	887,500	700,250	187,250
1967	1,060,000	882,795	617,145	122,987	142,663	878,000	703,500	174,500
1968	1,218,000	1,015,070	699,289	152,176	163,605	997,000	816,000	181,000
1969	1,331,000	1,109,097	742,118	196,857	170,122	1,150,000	950,000	200,000
1970	1,167,000	972,533	650,327	153,247	168,959	1,000,000	803,000	197,000
1971	1,210,000	1,004,778	639,909	170,755	194,114	1,050,000	834,000	216,000
1972	1,342,000	1,152,433	706,484	205,231	240,718	1,126,000	876,000	250,000
1973	1,481,000	1,262,439	736,819	212,545	313,075	1,242,000	977,000	265,000
1974	1,448,000	1,206,061	630,223	238,958	336,880	1,282,000	978,000	304,000
1975	1,454,000	1,232,155	611,540	342,810	277,805	1,236,000	899,000	337,000
1976	1,741,000	1,465,462	758,992	365,190	341,280	1,471,000	1,062,000	409,000
1977	1,854,000	1,568,215	841,258	425,733	301,224	1,605,000	1,074,000	531,000
1978	1,911,000	1,616,514	882,697	437,360	296,457	1,673,000	1,098,000	575,000
1979	2,020,000	1,705,031	922,159	442,262	340,610	1,777,000	1,163,000	614,000
1980	1,982,000	1,693,633	884,255	541,771	267,607	1,738,000	1,058,000	680,000
1981	2,239,000	2,239,000	1,142,000	731,000	366,000	1,973,000	1,137,000	836,000
1982	2,095,000	2,095,000	970,000	742,000	383,000	1,836,000	974,000	862,000
1983	2,225,500r	2,225,500r	988,800r	853,200r	383,600r	1,954,400r	1,050,500r	903,900r
1984	2,215,600	2,215,600	961,200	862,000	392,400	1,940,000	1,030,700	909,400

r — revised
p — preliminary
(1) As reported, 1946-54: estimates expanded from reported figures, 1955 to present.
(2) For 1951-53 includes small amounts reported consumed by non-integrated fabricators
(3) Represents 100 per cent scrap consumption coverage by primary producers
(4) Most consumption of sweated pig apparently not reported by "others" prior to 1961
(5) Recovery from sweated pig included in new scrap 1946-60, old scrap 1961 to present.
(6) Figures 1981 to present represent estimated full coverage.

SOURCE: U.S. Department of the Interior, Bureau of Mines and U.S. Depatment of Commerce, Bureau of Industrial Economics.

U.S. Aluminum Foreign Trade Statistics

IMPORTS ACCOUNT FOR 18.6 PERCENT OF U.S. SUPPLY

For the year 1984 imports of aluminum ingot and mill products accounted for 18.6 percent of total aluminum supply in the United States. Exports comprised 7.0 percent of total industry shipments. These facts illustrate the major role of foreign trade in the U.S. aluminum industry.

During 1984 imports of aluminum ingot rose 18.8 percent to 1,944 million pounds as compared with 1,637 million pounds in 1983. Imports of semifabricated products jumped 76.2% to 1,090 million pounds.

Exports of aluminum ingot fell in 1984 to 572 million pounds, a 28.0% drop over the 1983 level of 795 million pounds. Exports of semifabricated products increased to 504 million pounds, 13.1 percent above 1983.

Exports of aluminum scrap showed a 4.0% decrease to a 555 million pound level.

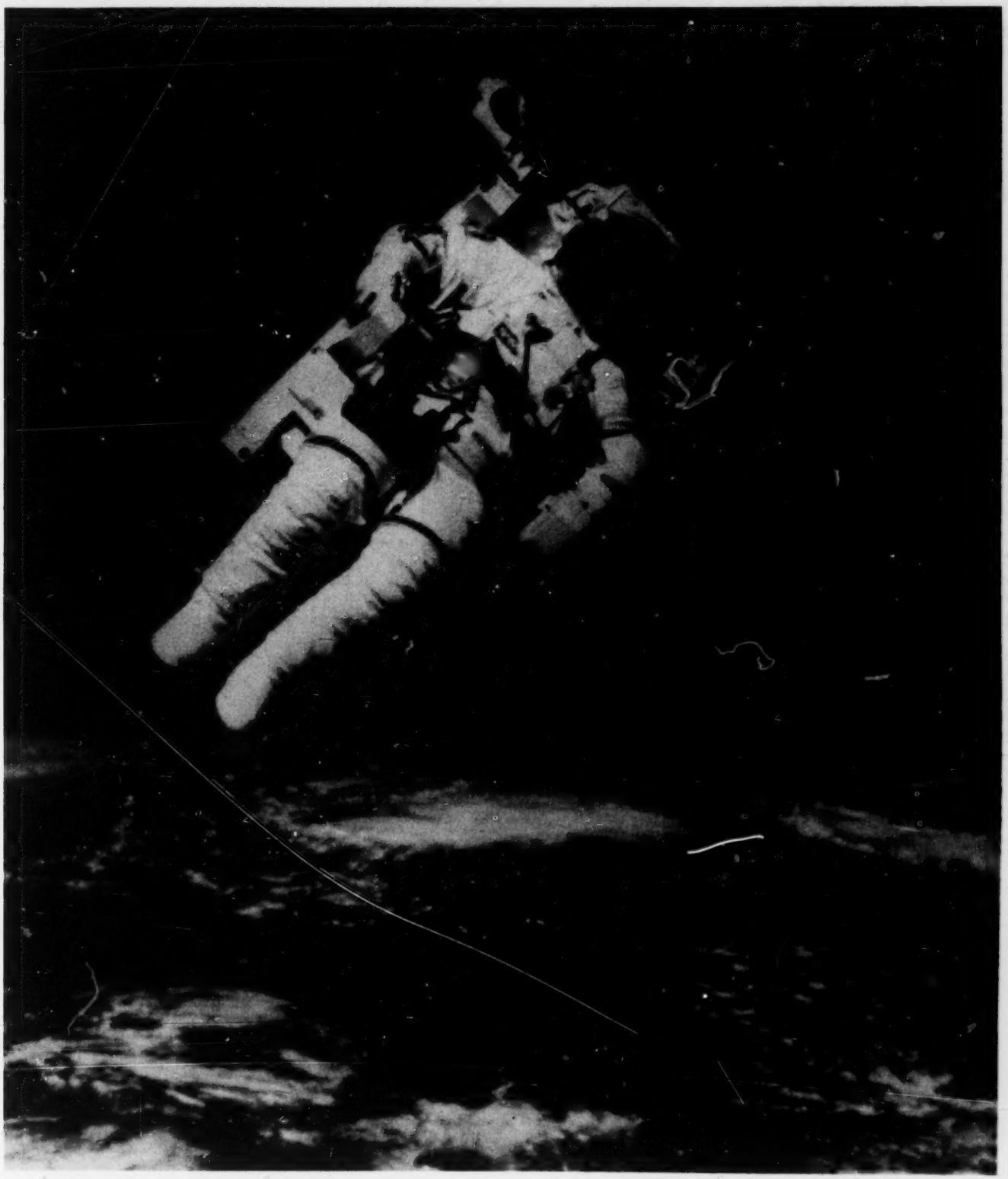
In 1984 the U.S. was a net importer of aluminum by an amount of 1,721 million pounds.

The product composition of United States imports and exports for the years 1974-1984 is graphically presented on pages 34 and 35. The data for total imports and exports as well as the detail of semifabricated aluminum product imports and exports for 1984 and the preceding 10 years are tabulated on pages 36 and 37. The total imports include dross and skimmings and the gross weight of scrap. In the table on United States Supply (page 23) dross and skimmings are excluded, and the recovered weight of imported scrap is used. It is counted as part of domestic secondary recovery for the years 1972-1984 and shown as a separate supply component for years prior to 1972.

The detail of 1984 aluminum imports by product and country of origin is presented on pages 38 and 39. Similarly, the exports on a product basis by country of destination are detailed on pages 40 and 41.

For information on years prior to 1974 see the Aluminum Statistical Review—Historical Supplement.

Astronaut Bruce McCandless III spacewalked in orbit, untethered and controlled his movements using the Manned Maneuvering Unit (MMU). The MMU, a nitrogen-jet backpack, uses aluminum in the main structure as well as in the nitrogen tanks.



U.S. Imports

IMPORTS UP 36.0 PERCENT

Aluminum imports totaled 3,353 million pounds during 1984, up 36.0 percent from 1983. Ingot, which accounted for 58.0 percent of all aluminum imported during 1984 increased 18.8 percent to 1,994 million pounds. Canada topped the list of ingot importers with imports of 1,330 million pounds, 68.4 percent of total ingot imports.

Semifabricated aluminum products increased 76.2 percent to 1,090 million pounds. Japan led the list of over 50 countries that increased their exports of semifabricated products to the U.S. with a total of 304 million pounds or 27.9 percent of total semifabricated products imports. Aluminum sheet imports, at 804 million pounds, were up 83.2 percent with Japan and Canada being the largest source at 37.7 percent and 17.4 percent of the total respectively.

Scrap imports increased 52.3 percent to 319 million pounds.

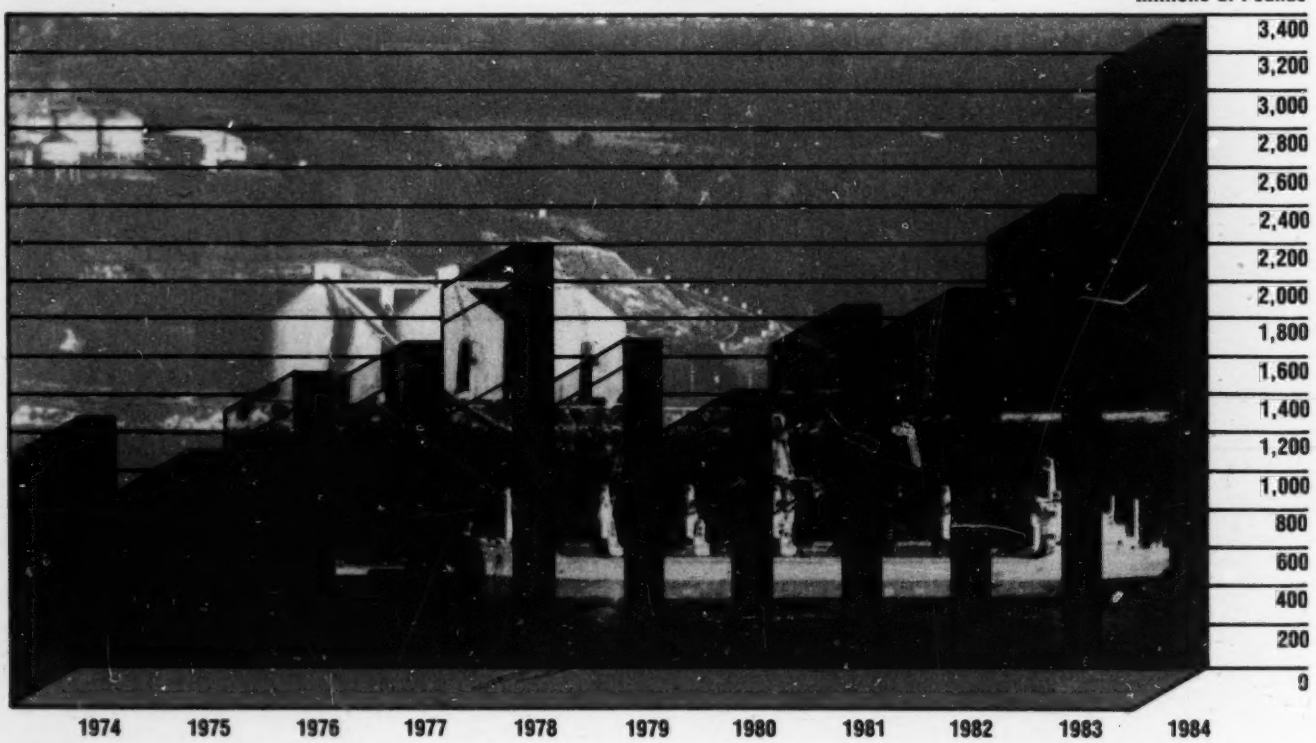
Penetration of U.S. markets by an increasing number of countries was made possible by low U.S. tariffs and the rising value of the dollar. Based on preliminary estimates, imported semifabricated products achieved a 7.6 percent penetration of the U.S. market, up from 5.0 percent in 1983.

DESCR[illegible]

The graph below illustrates the trend of U.S. aluminum imports in the years 1974-1984. In addition to showing the imports of ingot, scrap, and dross and skimmings, the upper half of the table on pages 36 and 37 shows in detail the categories of imports of semifabricated products for the years 1974-1984. Imports of aluminum by country for the year 1984 are shown on pages 38 and 39.

Scrap & Dross
Semifabricated
Ingot

U.S. Aluminum Imports 1974-1984



Source: the Aluminum Association

U.S. Exports

U.S. EXPORTS DOWN 10.3 PERCENT

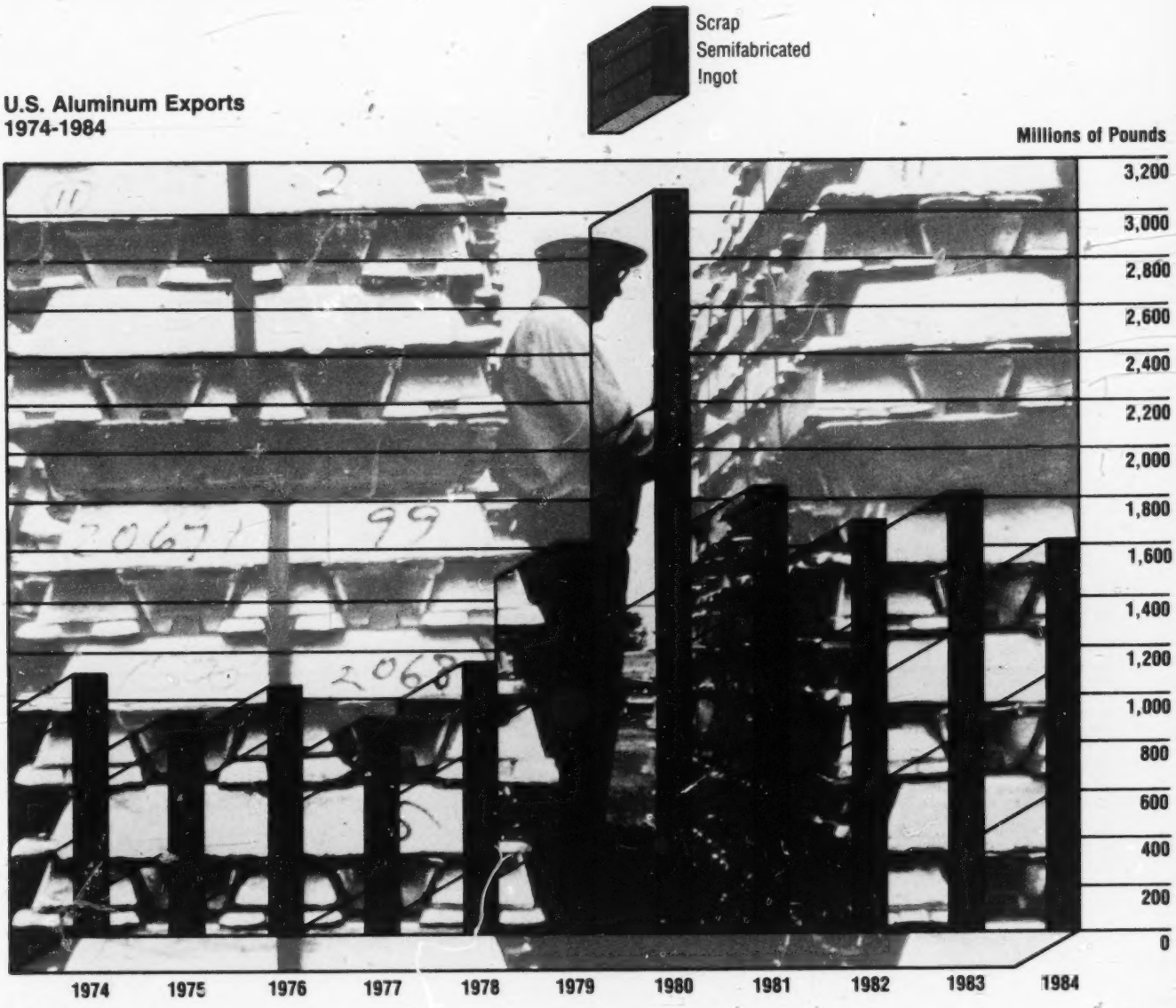
Total aluminum exports during 1984 were 1,632 million pounds, down 10.3 percent from 1983. Ingot exports fell 28.0 percent to 572 million pounds from a 1983 level of 795 million pounds. Semifabricated exports increased 13.1% from 446 million pounds in 1983 and 504 million pounds in 1984. Exports of scrap dropped from 579 million pounds in 1983 to 556 million pounds in 1984, about 4.0%.

Of the 119 countries receiving aluminum from the U.S., Japan received 42.1 percent or 692 million pounds, (308 ingot, 376 scrap and 8 semifabricated). Exports to Canada were 382 million pounds of which 296 million pounds were semifabricated products and exports to Mexico were 156 million pounds.

DESCRIPTION:

The graph below illustrates the trend of U.S. aluminum exports in the years 1974-1984. In addition to showing the exports of ingot and scrap, the lower portion of the table on pages 36 and 37 shows the detail of exports of semifabricated products for the years 1974-1984. Exports of aluminum by country for 1984 are shown on pages 40 and 41.

U.S. Aluminum Exports 1974-1984



Source: the Aluminum Association

United States Imports and Exports

United States Imports and Exports 1974-1984

Thousands of pounds

PRODUCT	1984	1983	1982	1981	1980
Total Imports	3,353,255	2,465,217	1,966,647	1,894,847	1,453,529
TOTAL INGOT & SEMIFABRICATED	3,034,098	2,255,700	1,814,325	1,725,220	1,329,404
INGOT	1,944,381	1,637,353	1,358,751	1,421,311	1,161,328
SEMIFABRICATED, TOTAL	1,089,717	618,347	455,574	303,909	168,076
Sheet & plate, Total	884,498	536,059	414,819	247,139	126,117
Circles & disks	29,144	19,131	16,404	11,673	7,757
Other	855,354	516,929	398,415	235,466	118,360
Foil, Total	54,005	29,238	19,328	13,430	9,099
Over .00035"	27,045	12,345	8,749	4,791	3,532
Not over .00035"	23,631	15,226	8,708	6,608	4,116
Capacitor	3,329	1,666	1,870	2,031	1,452
Rod & bar	82,269	27,435	10,057	34,238	16,343
Wire	26,966	6,444	3,202	3,220	2,256
Cable	5,337	2,021	101	8	144
Angles, shapes, etc.	12,690	3,478	1,272	1,320	1,206
Pipe & tube	8,981	3,170	1,279	1 167	682
Powder & paste	14,971	10,503	5,515	3,388	12,228
SCRAP	303,522	195,049	148,675	163,988	119,603
DROSS & SKIMMINGS	15,634	14,469	3,647	5,639	4,522
Total Exports	1,631,992	1,819,397	1,723,285	1,852,324	3,082,645
TOTAL INGOT & SEMIFABRICATED	1,076,439	1,240,875	1,294,687	1,370,001	2,193,283
INGOT	572,316	795,216	802,348	688,321	1,429,813
SEMIFABRICATED, TOTAL	504,124	445,659	492,339	681,680	763,470
Sheet & plate	402,992	318,667	323,074	411,385	425,792
Foil	11,917	10,952	12,933	21,338	37,911
Rod & bar	22,133	24,374	51,980	102,463	136,736
Wire, bare	6,162	9,972	11,791	24,653	57,737
Other conductor	5,699	35,845	46,953	70,324	29,031
Angles, shapes, etc.	11,137	10,310	9,298	8,507	25,528
Pipe & tube, Total	10,447	9,480	13,157	15,216	16,500
Electric conduit	1,335	1,730	3,218	3,137	1,569
Other	9,112	7,751	9,939	12,079	14,931
Powder	8,086	5,075	6,082	6,769	16,047
Castings	21,488	18,199	14,359	17,860	14,992
Forgings	4,064	2,785	2,711	3,165	3,195
SCRAP	555,552	578,522	428,598	482,323	889,363
Net Imports*	1,721,263	645,820	243,362	42,523	−1,629,116

Detail may not add to totals due to rounding.
** Imports less exports*

NOTE: Prior to 1974, consult the Aluminum Statistical Review—Historical Supplement.

SOURCE: U.S. Department of Commerce, Bureau of The Census.

1979	1978	1977	1976	1975	1974
1,714,794	2,194,902	1,688,604	1,524,971	1,120,267	1,287,966
1,567,857	2,000,058	1,505,431	1,339,742	998,468	1,127,430
1,141,517	1,515,576	1,340,658	1,150,741	868,281	1,017,722
426,339	484,482	164,773	189,001	130,187	109,708
357,285	433,684	128,675	150,543	107,087	69,690
21,529	20,473	15,363	16,949	10,492	11,634
355,756	413,211	113,312	133,594	96,595	58,056
17,925	21,451	9,763	10,993	4,465	13,637
6,020	7,489	3,679	4,593	2,301	8,931
10,036	12,626	5,141	5,253	1,551	3,358
1,870	1,336	943	1,147	615	1,348
37,959	22,133	18,146	20,907	12,718	18,813
6,902	3,840	3,526	4,072	2,590	3,355
146	77	438	507	917	1,519
1,664	1,793	2,082	490	932	647
1,098	868	731	919	842	1,193
3,361	637	1,415	570	637	854
136,632	184,305	179,789	171,427	109,613	149,486
10,305	10,539	3,384	13,802	12,186	11,050
1,637,086	1,136,424	915,508	1,038,439	938,770	1,087,467
1,022,924	747,409	712,182	820,522	804,968	927,150
401,300	253,234	195,542	304,732	371,770	415,668
621,625	494,174	516,640	515,790	433,268	511,482
404,509	291,764	344,309	343,014	276,321	366,910
20,566	11,902	13,062	14,252	10,375	16,865
61,510	59,672	27,433	54,913	51,577	46,617
30,129	23,906	15,240	18,364	21,481	16,008
30,600	56,121	58,137	27,630	27,350	8,541
22,402	17,110	8,494	9,761	14,120	18,533
16,178	19,115	21,370	19,755	15,107	17,410
1,901	3,493	7,230	4,577	3,266	2,245
14,277	15,622	14,140	15,178	11,841	15,165
14,356	14,584	14,804	16,879	6,920	8,733
17,840	na	8,146	7,759	5,774	7,513
3,526	na	5,643	3,463	4,243	4,352
614,162	389,015	203,326	217,917	133,802	160,317
77,708	1,058,478	773,096	486,532	181,497	200,499

United States Imports by Product and Country

United States Imports by Product and Country—1984

Thousands of Pounds

	Total	Ingot	Scrap Dross and Skimmings	Semi-fabricated Products	Sheet	Plate	Circles & Discs
TOTAL ALL COUNTRIES	3,337,620	1,944,381	303,522	1,089,717	803,873	51,481	29,144
AFRICA	65,452	60,336	77	5,038	3,358	—	—
Egypt	16,691	13,344	—	3,347	1,668	—	—
French Indian Ocean	3,645	3,645	—	—	—	—	—
South Africa, Rep.	45,116	43,347	77	1,692	1,690	—	—
NORTH AMERICA	1,692,622	1,329,540	202,708	160,374	134,750	11,684	63
Bermuda	20	—	—	20	20	—	—
Canada	1,692,602	1,329,540	202,708	160,354	134,730	11,684	63
LATIN AMERICA	402,225	212,748	41,448	148,029	41,467	142	872
Argentina	30,414	19,532	—	10,882	7,292	32	187
Brazil	144,107	98,157	—	45,950	8,676	110	80
Costa Rica	2,838	42	123	2,673	2,458	—	—
Jamaica	888	4	857	27	—	—	—
Mexico	17,467	1,794	9,627	6,047	4,843	*	240
Panama	3,891	50	3,750	91	44	—	—
Suriname	9,675	9,675	—	—	—	—	—
Venezuela	190,705	82,763	25,607	82,335	18,135	—	365
Other	2,239	732	1,484	23	20	—	—
EAST ASIA	326,669	18,024	267	308,378	287,779	3,236	6,708
Hong Kong	4,088	—	121	3,967	153	21	3,774
Japan	304,596	784	146	303,665	287,133	3,215	2,819
Korea, Republic of	17,254	17,051	—	203	38	—	104
Taiwan, Rep. of China	731	189	—	542	455	—	11
SOUTH ASIA	191,243	166,495	11,460	13,287	9,103	7	816
Bahrain	87,267	86,292	—	975	—	—	—
Israel	6,564	2,822	365	3,377	2,631	7	—
Malaysia	7,064	—	—	7,064	6,094	—	816
Saudi Arabia	2,074	2,072	—	2	—	—	—
Turkey	1,228	—	—	1,228	203	—	—
United Arab Emirates	86,405	75,309	11,096	—	—	—	—
Other	642	—	—	642	174	—	—
EUROPE	533,142	137,469	38,139	357,534	235,509	35,519	20,489
Austria	6,365	141		6,224	3,935	10	—
Belgium	72,726	2,090	3,816	66,820	54,694	1,054	6,335
France	87,221	18,100	162	68,959	37,888	19,303	3,956
Germany, Fed. Rep.	82,100	27,193	878	54,029	29,173	3,503	881
Greece	18,965	—	—	18,965	13,111	82	617
Italy	33,217	3,782	1,974	27,461	17,270	1,281	4,305
Netherlands	20,641	3,448	3,554	13,639	13,063	134	12
Norway	32,219	858	—	31,361	30,969	—	258
Spain	51,411	41,740	—	9,672	6,577	4	791
Sweden	3,514	2	—	3,513	2,758	—	—
Switzerland	19,493	3,232	319	15,942	7,350	5,219	673
United Kingdom	72,369	28,952	27,435	15,982	3,470	4,703	2,543
Yugoslavia	30,216	6,834	—	23,382	14,435	225	119
Other	2,684	1,098	—	1,586	817	1	—
OCEANA	62,323	5,134	28	57,160	56,257	893	—
Australia	62,284	5,134	—	57,150	56,253	893	—
Other	38	—	28	10	4	—	—
TOTAL WESTERN WORLD	3,273,675	1,929,747	294,126	1,049,802	768,222	51,481	28,948
OTHER	63,945	14,634	9,396	39,915	35,651	—	195
Hungary	18,218	—	—	18,218	15,296	—	107
Romania	22,136	1,545	—	20,592	20,007	—	—
USSR	22,444	13,090	9,354	—	—	—	—
Other	1,147	—	42	1,105	349	—	88

(*) Less than 500 pounds

Details may not add to totals because of rounding.

SOURCE: U.S. Department of Commerce, Bureau of The Census.

NOTE: Reimports are metal exported for processing and returned for further processing (TSUSA 806.30)

Total Foil	Capacitor Foil	Foil, not Over 0.00035"	Foil over 0.00035"	Rod and Bar	Wire	ACSR and Bare Cable	Angles, Shapes & Sections	Pipes Tubes & Fittings	Powder and Paste
54,005	3,329	23,631	27,045	82,269	26,966	5,337	12,690	8,981	14,971
2	—	—	2	1,679	—	—	—	—	—
—	—	—	—	1,679	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
2	—	—	2	—	—	—	—	—	—
6,539	*	4,687	1,851	1,173	1,742	77	2,096	808	1,443
—	—	—	—	—	—	—	—	—	—
6,539	*	4,687	1,851	1,173	1,742	77	2,096	808	1,443
5,883	*	4,688	1,195	59,649	21,543	4,087	7,400	4,753	2,234
*	—	—	*	2,892	404	—	35	39	—
5,792	*	4,669	1,123	16,687	2,931	3,958	1,026	4,470	2,221
86	—	19	67	—	—	129	—	—	—
—	—	—	—	—	—	—	27	—	—
1	—	—	1	1	249	—	699	—	14
—	—	—	—	—	47	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	40,070	17,911	—	5,612	244	—
3	—	—	3	—	—	—	—	*	—
6,177	444	4,413	1,320	689	628	632	1,167	1,339	23
—	—	—	—	—	*	—	10	9	—
6,131	444	4,412	1,275	687	624	629	1,155	1,249	23
36	—	—	36	—	—	—	—	26	—
11	—	1	10	2	4	3	2	55	*
1,330	—	41	1,290	440	161	1	597	272	560
—	—	—	—	435	—	1	199	—	340
59	—	41	19	4		—	398	272	4
—	—	—	—	—	153	—	—	—	—
—	—	—	—	—	2	—	—	—	—
1,025	—	—	1,025	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
246	—	—	246	—	6	—	*	*	215
31,248	2,885	9,797	18,566	18,051	2,888	540	1,427	1,808	10,055
2,279	—	1,260	1,020	—	—	—	—	*	—
851	5	37	810	3,421	421	—	2	40	2
4,269	1,266	1,942	1,060	2,237	521	*	60	233	493
13,447	300	4,158	8,989	379	111	—	442	546	5,548
5,155	—	4	5,151	—	—	—	—	—	—
1,618	1,239	25	354	2,390	132	*	*	17	447
88	68	3	17	227	42	*	19	4	49
—	—	—	—	39	—	—	86	10	—
95	—	—	95	1,303	141	300	165	—	297
—	—	—	—	37	*	*	341	18	358
2,417	1	2,184	232	5	—	*	277	*	*
810	3	187	620	1,090	307	19	18	882	2,140
188	—	—	188	6,922	1,210	221	17	45	—
30	2	—	29	*	4	—	—	13	721
2	—	—	2	1	4	—	3	1	—
—	—	—	—	1	4	—	—	—	—
2	—	—	2	—	—	—	3	1	—
51,181	3,329	23,627	24,225	81,681	26,966	5,337	12,690	8,981	14,315
2,824	—	4	2,820	589	—	—	—	—	656
2,156	—	4	2,152	3	—	—	—	—	656
—	—	—	—	585	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
668	—	—	668	—	—	—	—	—	—

United States Exports by Product and Country

United States Exports by Product and Country—1984

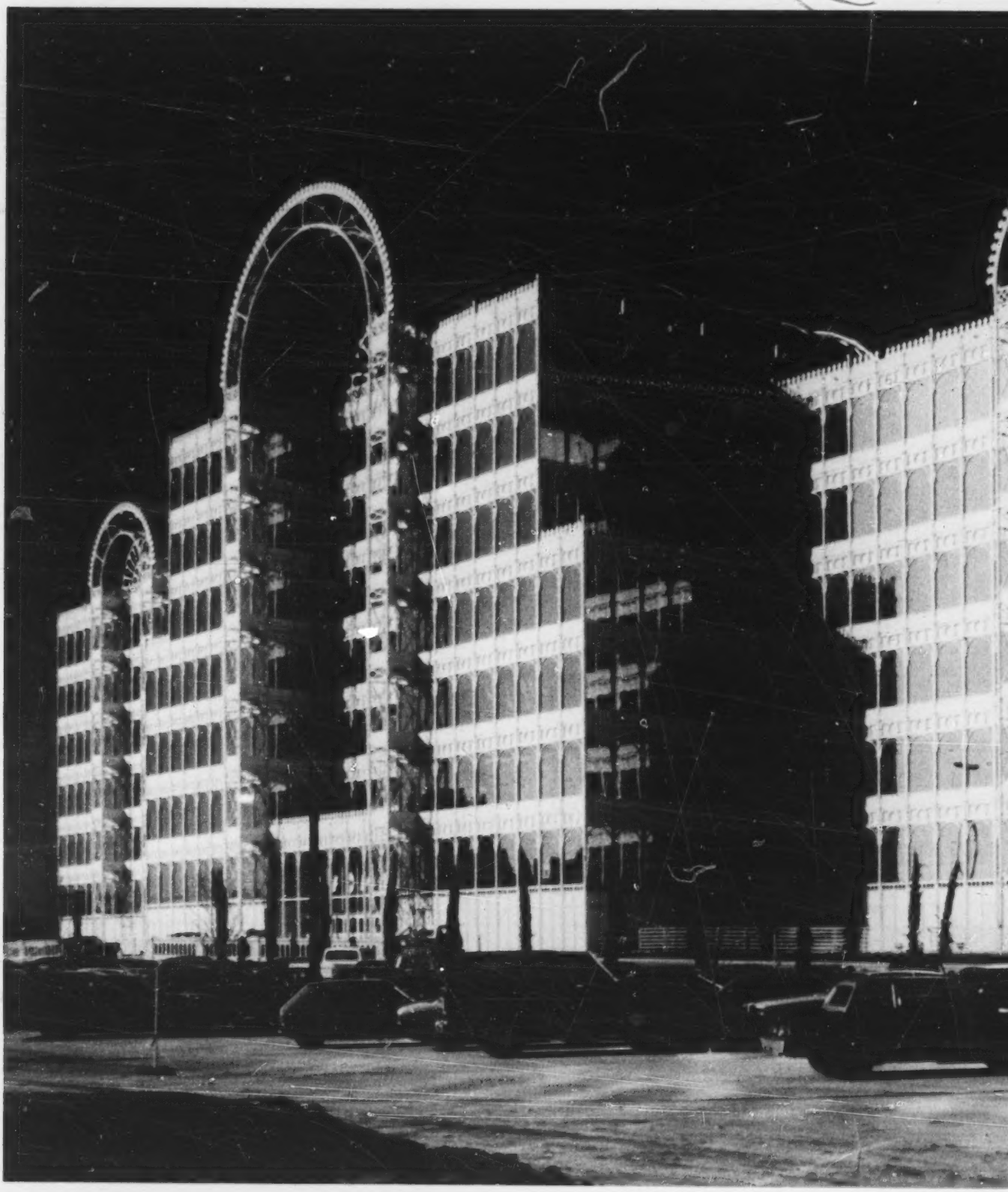
Thousands of Pounds

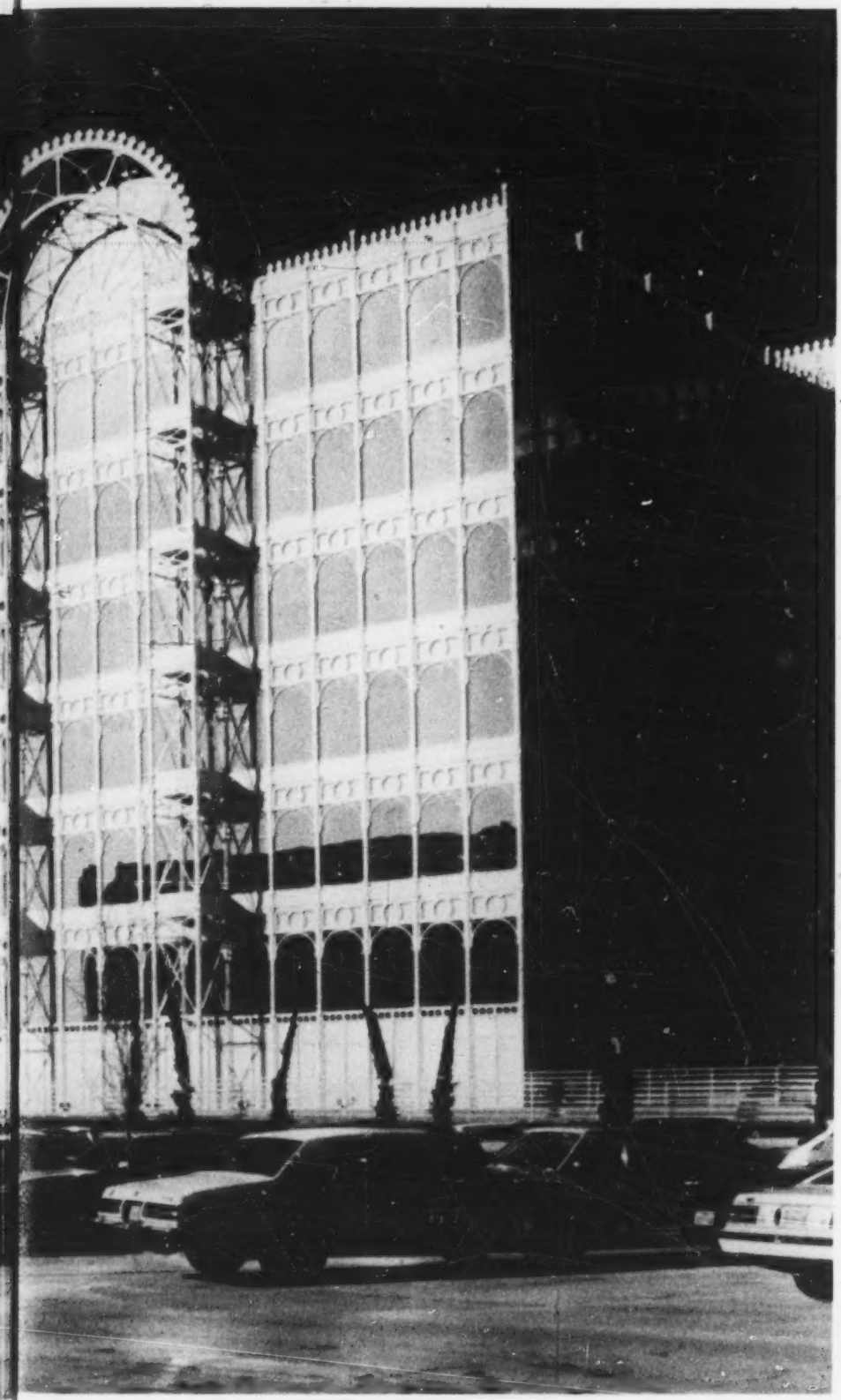
	Total	Ingot	Waste and Scrap	Semi-fabricated Products	Sheet	Plate	Circles & Discs
TOTAL ALL COUNTRIES	1,646,078	572,316	569,685	504,077	369,487	29,275	4,230
AFRICA	2,307	416	36	1,854	555	40	11
Egypt	391	315	—	76	2	*	—
South Africa, Rep.	1,060	21	36	1,003	412	37	—
Other	856	81	—	775	141	3	11
NORTH AMERICA	381,994	38,267	47,686	296,041	243,213	10,703	2,808
Bermuda	165	3	—	162	2	43	
Canada	381,829	38,264	47,686	295,879	243,211	10,660	2,808
LATIN AMERICA	199,948	43,402	71,733	84,813	53,214	8,988	448
Brazil	5,414	612	594	4,207	1,173	712	71
Chile	1,448	364	306	778	156	5	1
Dominican Rep.	3,202	2,394	23	785	86	49	—
El Salvador	1,283	787	—	496	163	—	—
Jamaica	1,305	244	—	1,061	343	86	*
Mexico	156,119	34,932	70,670	50,517	30,976	7,982	272
Panama	2,504	1,876	—	628	84	1	—
Trinidad	2,067	342	—	1,724	128	69	—
Venezuela	20,642	145	4	20,493	18,912	57	61
Other	5,965	1,705	136	4,125	1,193	26	24
EAST ASIA	822,730	394,123	414,885	13,723	2,996	2,042	363
Hong Kong	9,009	7,429	510	1,070	161	60	29
Japan	692,306	308,023	376,101	8,182	1,881	1,803	298
Korea, Republic of	51,421	46,662	2,575	2,184	468	27	—
Taiwan, Rep. of China	69,994	32,008	35,699	2,286	486	152	35
SOUTH ASIA	47,416	27,188	594	19,633	3,222	948	551
India	3,672	3,349	161	161	82	6	*
Indonesia	2,379	2,206	—	173	20	8	—
Israel	6,182	253	62	5,867	1,318	848	539
Malaysia	2,993	2,578	74	340	40	*	—
Pakistan	1,671	—	133	1,539	21	—	—
Philippine Rep.	2,437	1,997	33	407	37	—	—
Saudi Arabia	6,933	41	42	6,850	943	49	5
Singapore	1,791	495	—	1,296	375	33	6
Thailand	16,991	16,025	5	961	19	4	—
Other	2,368	245	84	2,039	366	1	—
EUROPE	135,676	18,455	34,003	83,218	65,816	6,069	38
Belgium	4,794	22	3,597	1,175	801	42	—
France	2,224	129	981	1,113	166	386	1
Germany, Fed. Rep.	17,599	218	12,965	4,416	1,294	1,589	20
Italy	17,784	87	6,223	11,474	7,682	1,013	2
Netherlands	29,569	17,309	8,334	3,925	2,538	494	—
Spain	3,117	43	1,392	1,683	449	741	—
Sweden	7,682	49	50	7,583	7,328	138	—
United Kingdom	50,243	248	458	49,537	43,859	1,461	14
Other	2,664	349	3	2,312	1,699	205	*
OCEANA	8,781	3,361	747	4,673	404	485	12
Australia	7,639	3,344	747	3,548	341	444	4
Other	1,142	17	—	1,125	63	40	8
TOTAL WESTERN WORLD	1,598,852	525,212	569,685	503,956	369,421	29,274	4,230
OTHER	47,226	47,104	—	122	66	1	—
China, Peoples Rep.	47,207	47,104	—	103	66	1	—
Other	18	—	—	18	—	*	—

(*)Less than 500 pounds

Foil Not Backed	Rod and Bar	Wire	ACSR & Bare Cable	Electrical Conduit	Other Pipe & Tube	Angles, Shapes & Sections	Powder & Paste	Castings	Forgings
11,917	22,043	6,161	5,699	1,335	9,157	11,137	8,086	21,488	4,064
195	8	89	2	72	44	75	778	6	*
1	—	1	—	69	*	—	*	3	—
54	—	33	2	—	5	*	460	1	*
140	8	36	—	3	39	75	318	1	*
2,292	4,746	1,479	1,552	[illegible]0	2,769	2,335	2,982	17,531	2,989
5	1	19	*	[illegible]	52	13	—	19	—
2,287	4,744	1,460	1,552	633	2,717	2,322	2,982	17,513	2,989
3,428	5,198	2,148	2,267	267	2,325	2,730	1,526	2,080	194
46	47	69	1,542	—	47	341	151	10	—
*	3	3	476	—	19	2	111	—	2
168	3	14	—	3	3	450	—	8	—
281	*	*	—	—	51	*	—	*	—
165	3	370	48	—	44	2	*	—	—
436	4,831	1,000	27	63	1,806	274	891	1,785	174
329	3	103	*	5	19	49	2	33	—
453	6	42	86	41	19	720	*	146	16
1,011	25	144	*	—	156	*	82	23	—
539	277	403	87	155	161	892	289	75	4
379	3,008	287	45	14	1,099	3,011	398	56	26
192	32	35	1	1	16	522	16	4	—
89	2,796	22	32	7	176	704	323	29	21
*	27	109	11	3	103	1,376	40	17	3
97	152	121	*	4	804	409	19	6	2
4,709	2,546	1,269	1,696	287	2,297	1,198	127	483	298
16	10	7	*	—	*	38	2	—	—
87	21	—	—	3	29	1	—	5	—
54	846	934	—	2	142	827	14	62	280
3	258	30	—	*	4	4	1	*	—
—	341	—	1,175	—	—	*	1	—	—
73	—	233	13	—	28	5	17	—	*
3,276	15	11	16	245	1,931	127	—	231	—
244	283	18	—	*	79	15	45	182	15
151	743	30	—	—	10	—	1	3	—
805	30	7	491	37	72	181	46	—	2
828	4,246	801	117	51	429	1,548	1,466	1,268	542
56	4	32	—	*	11	29	11	59	130
41	35	40	80	—	5	201	145	7	7
82	327	149	—	1	29	61	22	808	33
60	1,908	360	*	*	33	250	104	15	45
88	48	62	24	—	74	441	9	45	104
8	323	10	—	—	10	51	3	81	7
13	6	1	1	—	7	23	56	3	6
427	1,533	93	3	47	206	420	1,068	217	190
53	61	54	9	3	53	73	48	34	20
77	2,289	86	20	3	194	231	800	62	13
34	2,281	31	20		185	43	95	62	8
42	7	55	—	3	9	188	704	*	5
11,908	22,040	6,139	5,699	1,335	9,157	11,129	8,077	21,486	4,062
9	3	22	—	—	*	8	9	2	2
—	3	22	—	—	*	8	—	2	2
9	—	—	—	—	—	*	9	—	—

World Aluminum Statistics





The aluminum industry is international by its very nature. From the extraction of its basic source material at bauxite sites located in a number of countries throughout the world to its fabrication and distribution in every nation on earth, the aluminum industry should be viewed in a world-wide perspective. This section attempts to provide data on two of the key aspects of world aluminum, world primary aluminum production and the apparent per capita consumption of aluminum for selected countries.

World production of primary aluminum in 1984 is estimated to have been 17,109 thousand short tons,* up 11.3 percent from 1983. World primary aluminum production is presented by country for the years 1974-1984 on pages 45.

Data on the consumption of aluminum on a per capita basis are presented for 41 countries. These countries represent three-quarters of the world's production of primary aluminum. The data are presented in a uniform statistical format for the years 1974-1984. The data for supply and consumption show ingot and mill product detail for imports and exports. Midyear population figures are presented as part of the calculation of consumption on a per capita basis for each country.

*Short tons are being used uniformly in these as well as preceding sections of the Review.

The New Infomart in Dallas, which serves as a high-tech bazaar and meeting place for the computer industry, is a recreation of England's Crystal Palace, the highlight of the 1851 Great Exhibition. The building uses aluminum as a substitute for the original's cast iron skeleton.

World Primary Aluminum Production

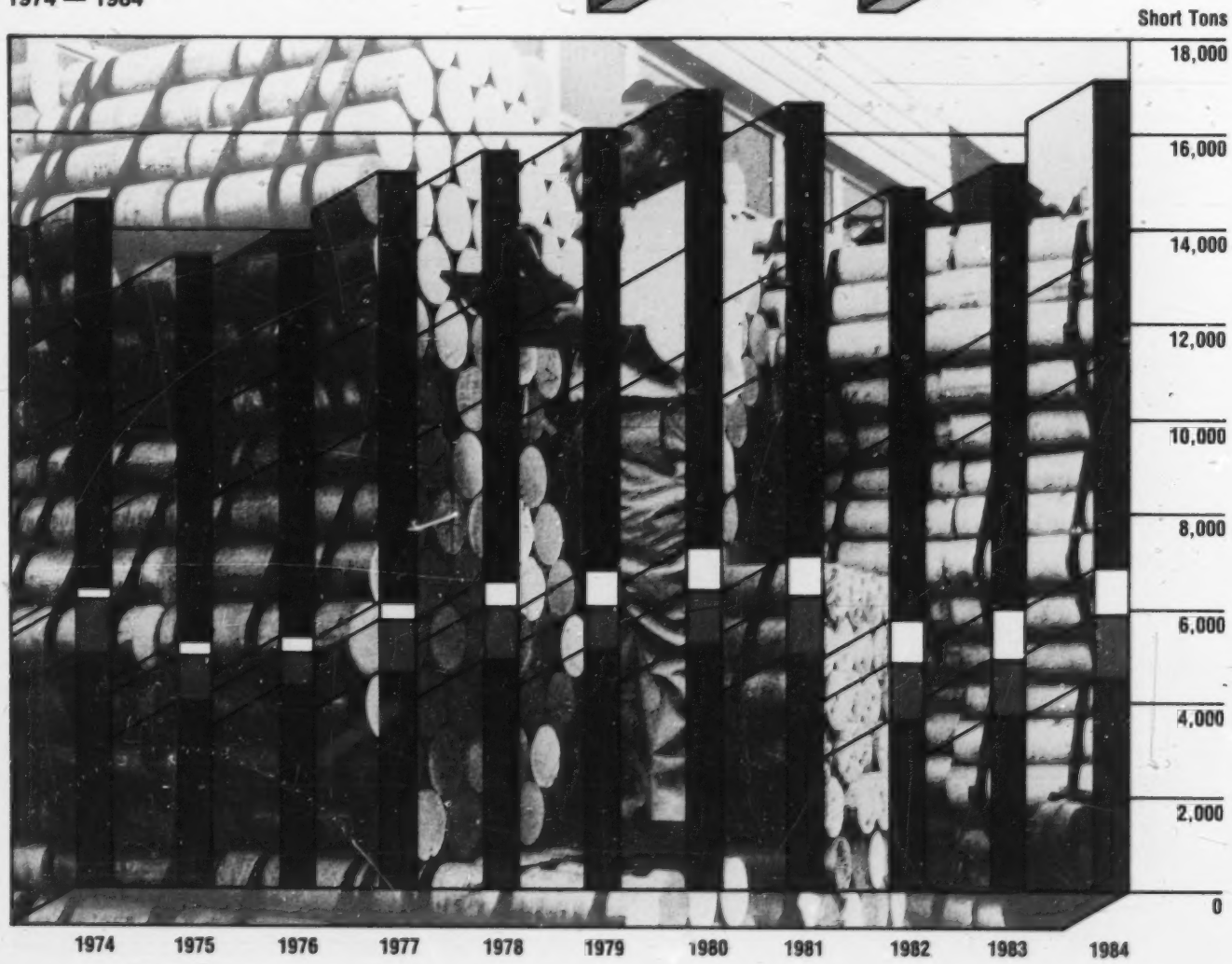
WORLD PRODUCTION UP 11.3 PERCENT

Estimated 1984 world production of primary aluminum totaled 17,109 thousand short tons, up 11.3 percent from the revised estimate of 15,372 thousand tons in 1983 according to Bureau of Mines data.

Over the decade 1974-1984 world production increased 17.9 percent, an annual growth rate of 1.6 percent.

The United States accounted for 26.4 percent of the world's 1984 production while Europe accounted for 24.3 percent. The remaining 49.3 percent came from Asia (7.5 percent), Canada (7.7 percent), South America (6.0 percent), Oceania (6.5 percent), Africa (2.6 percent), and others (19.0 percent).

World Primary Aluminum Production 1974 — 1984



World Primary Aluminum Production
1974 — 1984

Thousands of Short Tons

Country	1984p	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
TOTAL WORLD[1]	17,109	15,372r	14,835r	16,629r	16,957r	16,044	15,577	15,189	13,913	13,387	14,513
AFRICA	453	467r	559r	494r	482	441	377	414	382	301	308
Cameroon	88	86r	94r	41	47r	48	54	61	64	57	52
Egypt	183	154r	155	148	132	112	111	98	65	2	—
Ghana	—	46r	192	209r	207	186	123	169	167	158	173
South Africa	182	181r	118	96	96r	95	89	86	86	84	83
NORTH AMERICA	5,841	4,899	4,783	6,178	6,307	5,927	5,960	5,612	4,949	4,857	6,028
Canada	1,323	1,203	1,174	1,230	1,177	904	1,156	1,073	698	978	1,125
United States	4,518	3,696	3,609	4,948	5,130	5,023	4,804	4,539	4,251	3,879	4,903
LATIN AMERICA	1,021	1,031r	895r	868r	905r	764	450	398	350	315	278
Argentina	148	147r	152	148	147	131	54	55	48	27	1
Brazil	454	442	330	282r	288r	263	205	184	153	134	139
Mexico	44	44	45	47r	47	48	48	47	47	44	45
Suriname	33	32r	66	45r	61r	71	61	64	51	46	38
Venezuela	342	366r	302r	346	362r	251	82	48	51	64	55
EAST ASIA[1]	336	296	415	904r	1,294r	1,200	1,244	1,363	1,061	1,168	1,286
Japan	316	282	387	850r	1,203	1,114	1,166	1,310	1,013	1,117	1,232
Korea, Rep.	20	14	17	20r	20r	24	22	20	20	20	19
Taiwan	—	—	11	34	71r	62	56	33	28	31	35
SOUTH ASIA[1]	946	817r	716r	564r	426r	422	435	411	439	386	326
Bahrain	195	187r	188	155r	139	139	135	134	135	128	130
India	298	225	239	235	204	233	236	197	231	184	142
Indonesia	198	153r	34	—	—	—	—	—	—	—	—
Iran	51	51r	50r	13r	18r	15	28	23	34	56	54
Turkey	39	35r	41r	44	37	35	36	57	39	18	—
U. Arab Emirate	165	166r	164r	117	28	—	—	—	—	—	—
EUROPE	4,162	3,979r	3,908r	4,109r	4,130r	3,951	3,866	3,816	3,680	3,566	3,664
Austria	106	104	104	105r	104	102	101	101	98	98	101
France	377	398	430	481r	476	436	431	440	424	422	434
Germany, F.R.	827	819r	797	804	806	817	816	818	768	747	759
Greece	150	150r	162r	162	161	155	159	143	148	150	164
Iceland	90	85r	68r	83r	80r	80	81	82	72	68	77
Italy	254	216	257r	302r	299	297	298	287	228	210	238
Netherlands	273	259r	277	289	285	284	288	266	282	288	277
Norway	839	788r	701r	699	720	732	704	686	681	656	731
Spain	420	395r	405r	438r	425r	286	234	233	232	232	211
Sweden	91	90r	87	91	90	90	90	91	91	85	91
Switzerland	87	84	83	90r	95	91	88	88	86	87	96
United Kingdom	315	278r	266r	374	412r	396	382	386	369	340	323
Yugoslavia	333	313	271r	191r	177r	185	194	195	201	183	162
OCEANIA	1,104	770r	604	588	505r	467	457	433	410	356	364
Australia	836	527r	420	418	334r	297	290	273	256	236	242
New Zealand	268	243r	184	170	171	170	167	160	154	120	122
OTHER	3,248	3,115r	2,956r	2,926r	2,907r	2,872	2,788	2,742	2,642	2,438	2,259
China[1]	419	419r	419r	397r	397r	400	400	385	350	220	165
Czechoslovakia[1][2]	37	40r	37	36	42	41	41	40	40	48	55
German D.R.[1]	64	63r	64	66	66	66	72	72	65	65	65
Hungary	82	82	82	82	80r	79	79	79	78	77	76
Korea, N	11	11	11	11	11	11	11	11	11	—	—
Poland[3]	51	49r	47	73	105	106	110	115	114	113	112
Romania	269	246r	229	277r	266	239	235	230	224	225	206
U.S.S.R[1]	2,315	2,205r	2,067r	1,984r	1,940	1,930	1,840	1,810	1,760	1,690	1,580

(1) Estimated by the Bureau of Mines, Department of the Interior
(2) Includes secondary unalloyed ingot
(3) Includes primary alloyed ingot

r — Revised
p — Preliminary
Detail may not add to totals due to rounding.
SOURCE: Bureau of Mines, U.S. Department of Interior

Aluminum Supply and Apparent Consumption—Selected Countrie

PER CAPITA CONSUMPTION UP 1.0 PERCENT

Per capita aluminum consumption for those countries which provided both 1983 and 1984 data, increased an average of 1.0% in 1984 as compared with 1983. Of the 31 countries which responded to the 1984 survey, 18 (58%) showed increased usage in 1984 while the remainder, 13 (42%) indicated decreased or steady usage.

The United States was again the largest user of aluminum on a per capita basis (59.3). Other large users were W. Germany (49.8), Norway (48.1) and Sweden (43.7).

Per Capita Aluminum Consumption Formula

1. + Primary aluminum production
2. ± Government stockpile adjustment
3. + Imports of ingot
4. + Imports of mill products (aluminum alloy weight)
5. + Recovery of secondary aluminum alloys (from domestic and imported scrap)
6. − Exports of ingot
7. − Exports of mill products (aluminum alloy weight)
8. = Apparent aluminum consumption
9. + Beginning of year inventory
10. − End of year inventory
11. ± Inventory change
12. = Aluminum consumption (with inventory change)
13. ÷ Mid-year population
14. = Per capita consumption (lbs.) (with inventory change)
15. = Per capita consumption (lbs.) (with inventory change)

The Aluminum Association, in conjunction with industry associations in foreign countries, and, in some instances appropriate government agencies, is developing a joint program to compile uniform statistical data showing total supply and apparent consumption. Total supply for an individual country consists of primary production, imports, and secondary recovery. Apparent consumption is equal to the sum of these sources of total supply less exports and inventory changes. Production of primary aluminum for foreign countries is tabulated for the years 1974-1984 on page 45.

The tables on pages 48-61 show total supply and apparent consumption corresponding to the above format for the following countries:

Argentina
Australia
Austria
Bahrain
Belgium
Brazil
Cameroon
Canada
Denmark
Finland
France
Germany, F.R.
Greece
Iceland
Indonesia
Iran
Ireland
Israel
Italy
Japan
Korea, Rep.
Mexico, D.F.
Netherlands
New Zealand
Nicaragua
Norway
Panama
Philippines
Portugal
El Salvador
Saudi Arabia
Singapore
South Africa
Spain
Sweden
Switzerland
Taiwan
Turkey
United Kingdom
United States
Venezuela

The format for compiling total supply and apparent consumption data is shown below.

In order to develop a basis for showing relative aluminum usage by country and to provide a measure of trend over time, per capita consumption data have been calculated for each country. For this purpose mid-year population estimates have been used. It is important to emphasize that these estimates are not the only way of measuring relative consumption data among countries. Obviously, the composition of a country's population, standard of living, industrialization, climate, availability and economies of other materials, and a number of other important considerations affect the per capita use of aluminum. The formula is used because it is simple and permits the Association to compile data for more countries, with their cooperation, than can be compiled using more detailed information.

When data for individual lines are not available or are not appropriate, they are omitted. Inventory changes cover suppliers' inventories only. Consumption estimates exclude changes in customer inventories.

The components of the formula are numbered and cross referenced to the country details on pages 41-61.

A summary of per capita consumption covering the years 1974-1984 for each of the countries is shown on page 47.

Per Capita Aluminum Consumption of Selected Countries

Pounds per person per year

	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
Argentina*	5.5	5.3r	4.8r	4.0	4.8r	6.9r	4.9	5.9	6.2	8.3	9.0
Australia*	36.6	33.8	36.7	41.4	38.9	37.6	32.5	31.3	31.0	25.7	33.6
Austria*	28.9	25.5	23.8	26.5	27.6	25.0	23.7	24.7	23.3	24.4	20.4
Bahrain*	22.0	18.9	10.8	13.2	20.3	27.5	15.1	22.5	23.7	24.9	26.0
Belgium	27.1	21.0	20.6	16.1	20.6	20.3	19.6	21.4	23.4	16.5	23.0
Brazil*	4.6	5.1r	5.5	5.3	6.6r	6.4	5.8	5.6	5.3	5.2	4.9
Cameroon	4.4	4.5	3.6	3.5	6.4	4.7	3.9	5.3	8.4	6.8	8.0
Canada*	34.8	32.3	29.1	36.1	35.5	37.1	35.7	31.5	30.8	28.4	35.4
Denmark	na	28.9r	30.5r	27.3r	27.6r	31.8r	32.2	28.0	27.4	19.6	25.9
Finland	7.7	11.5	14.6	14.1	14.3	16.5	12.0	19.3	20.6	21.3	22.4
France*	26.0	27.2	27.3	26.0	30.1	28.1	25.4	26.0	26.5	20.5	25.0
Germany, F.R.*	49.8	48.1r	43.0	44.8	48.6	48.6	42.9	41.8	42.6	32.2	36.1
Greece	na	10.6	20.1r	22.0	21.8	15.7	8.7	9.0	8.1	9.8	8.6
Iceland	18.3	28.6r	23.4	34.1r	21.9	20.4	15.9	18.9	18.2	16.5	22.5
Indonesia	na	na	na	na	na	0.6	0.6	0.6	0.5	2.9	1.5
Iran	na	na	na	na	na	na	na	4.3*	4.2*	3.0*	2.8*
Ireland	9.5	8.3	8.8	9.1	9.6	10.9	10.6	7.9	9.1	4.1	10.6
Israel	na	na	na	na	na	na	na	9.4	9.9	na	16.9
Italy*	30.9	29.3r	27.1	27.6	32.4	28.0	24.7	24.3	21.8	15.2	23.3
Japan*	39.7	44.1r	42.5r	41.9	45.6r	42.8r	42.1r	35.4	35.8	26.9	32.5
Korea, Republic of	na	9.6	7.5	6.8	4.2	7.1	7.1	5.3	3.7	2.6	2.6
Mexico, D.F.*	3.5	2.5	4.9	6.5	5.6	4.9	4.1	2.6	3.4	3.5	3.8
The Netherlands	26.9*	23.6*	25.4*	20.1*	27.2*	26.0*	23.0*	25.1*	29.1*	18.3*	17.1*
New Zealand*	20.8	18.4	15.4	20.5	17.2	19.0	17.1	17.6	20.7	15.1	27.3
Nicaragua	na	na	na	na	na	na	0.5	1.3	1.0	1.4	1.8
Norway*	48.1	29.4	49.8	41.7	50.0	53.1	46.1	50.9	55.8	43.6	51.6
Panama	4.9	3.2	1.8	2.2	2.0	2.0	1.5	1.8	2.6	2.6	3.8
Philippines, Rep. of	0.5	0.8	1.1	0.4	0.8	1.5	0.8	1.0	1.0	0.5	0.9
Portugal	na	11.5r	11.9	11.9	8.5	7.6	8.6	6.9	5.6	2.7	7.9
El Salvador	0.5	1.2r	0.5	0.6	0.4	1.0	1.0	0.4	1.1	0.4	0.5
Saudi Arabia	19.8	46.1	9.4	25.1	24.8	19.0	17.5	14.1	5.2	2.8	2.5
Singapore	26.5	22.9	23.0	25.3	20.1	20.4	15.0	15.1	12.5	7.8	14.8
South Africa*	9.2	9.4	9.0	10.0	9.9	5.8	5.1	5.2	6.0	6.2	6.5
Spain*	9.7	11.8	12.1r	11.3	14.2	12.8	12.5	14.1	13.4	11.6	13.7
Sweden*	43.7	41.1	38.8	34.2r	34.4	36.9	32.6	34.5	40.8	39.8	42.5
Switzerland*	40.1	33.0	33.3	34.0	37.7	31.4	29.8	28.6	27.9	22.2	34.9
Taiwan, Republic of China*	12.6	19.6	13.7	14.5	13.4	15.0	12.8	10.5	8.7	6.9	6.6
Turkey	na	3.4	2.9r	3.4r	2.1	2.4r	2.5	4.3	3.4	3.7	1.7
United Kingdom	23.6	21.9	20.3	20.7	21.6	22.1	26.6	26.4	25.1	21.7	27.4
United States*	59.3	57.7r	51.0	55.2	56.8	65.8	65.9	60.3	57.1	44.9	60.4
Venezuela*	5.0	5.8r	13.9	9.0	15.2	14.8	11.3	9.7	8.1	6.1	5.2

Adjusted for inventory change
r — Revised
na — Not available at publication time
e — Estimated

Per Capita Aluminum Consumption

Thousands of short tons

ARGENTINA, REPUBLIC OF

	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
1. + Primary aluminum production	147.4	146.4	151.6	147.8	146.8	130.5	54.5	57.8	47.5	26.1	0.8
3. + Imports of ingot		—	—	—	—	—	—	0.1	22.3	53.6	93.4
4. + Imports of mill products	1.0e	1.2r	11.6	5.6	4.4	1.5	0.6	0.3	0.1	3.7	1.1
5. + Recovery of secondary	8.7	7.7	6.6	5.5	7.7e	8.8e	8.8e	9.7e	15.9e	18.3e	21.4e
6. − Export of ingot	33.2	48.3	74.5	97.2	69.9	34.5	8.3	—	—	—	—
7. − Exports of mill products	32.7	18.2r	18.1	12.5	9.8	4.5	11.2	3.7	1.2	1.7	1.4
8. = Apparent aluminum consumption	90.7	88.8	77.2	49.3	79.2	101.8	44.4	64.2	84.5	100.0	115.3
11. ± Inventory change	+7.2	+9.5	+7.7	−7.5	+11.0	+6.6	−20.5	−13.2	+4.5	−6.0	+3.1
12. = Aluminum consumption	83.6	79.4r	69.4	56.8	68.2	95.2	64.9	77.4	80.0	106.0	112.2
13. ÷ Mid-year population (mill.)	30.1e	29.6r	29.2r	28.7r	28.2r	27.8r	26.5	26.1	25.7	25.4	25.0
14. = Per capita consumption (lbs.)(1)	6.0	6.0r	5.3r	3.4r	5.6r	7.3r	3.3	4.9	6.6	7.9	9.2
15. = Per capita consumption (lbs.)(2)	5.5	5.3r	4.8r	4.0	4.8r	6.9r	4.9	5.9	6.2	8.3	9.0

NOTES:
(1) Without inventory change
(2) Adjusted for inventory change
e—Estimated
r—Revised

SOURCE: ALUAR Alumino Argentino S.A.I.C.—Ministerio De Defensa (COPEDESMEL).

AUSTRALIA

	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
1. + Primary aluminum production	834.1	522.6	419.1	417.4	333.5	301.1	293.7	237.7	254.9	234.9	240.0
3. + Imports of ingot	0.6	5.0	14.6	9.3	8.8	3.9	0.2	—	—	0.3	10.4
4. + Imports of mill products	9.6	7.1	14.4	15.9	11.8	8.9	4.0	4.5	4.8	4.6	11.9
5. + Recovery of secondary	47.7	41.6	44.9	48.9	41.9	33.6	26.9	27.1	30.1	27.1	40.0
6. − Exports of ingot	526.1	237.8	204.6	135.1	39.2	69.6	84.1	75.7	77.7	83.9	55.8
7. − Exports of mill products	64.8	54.6	35.9	28.0	20.3	17.7	5.3	3.6	1.5	1.7	6.2
8. = Apparent aluminum consumption	301.0	283.7	240.5	328.4	336.5	260.1	235.3	226.0	210.6	181.3	240.3
11. ± Inventory change	+16.1	+23.9	−26.1	−20.9	+52.2	−10.7	+4.2	+5.6	+1.1	+6.3	+16.3
12. = Aluminum consumption	284.9	259.9	278.4	307.4	284.3	270.8	231.0	220.4	209.5	175.0	224.0
13. ÷ Mid-year population (mill.)	15.5	15.4	15.2	14.9	14.6	14.4	14.2	14.1	13.5	13.6	13.3
14. = Per capita consumption (lbs.)(1)	35.2	36.9	31.7	44.3	46.1	36.1	33.1	32.1	31.2	26.6	36.1
15. = Per capita consumption (lbs.)(2)	36.6	33.8	36.7	41.4	38.9	37.6	32.5	31.3	31.0	25.7	33.6

NOTES:
(1) Without inventory change
(2) Adjusted for inventory change—primary metal only

SOURCE: Aluminium Development Council of Australia Limited

AUSTRIA

	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
1. + Primary aluminum production	105.6	103.8	103.5	103.8	104.1	102.2	100.6	101.2	97.7	98.3	100.8
3. + Imports of ingot	67.6	44.3	42.7	36.6	38.8	33.8	16.4	21.2	23.1	19.8	19.6
4. + Imports of mill products	57.7	53.5	46.7	41.4	43.2	40.6	33.0	32.0	26.9	19.1	27.3
5. + Recovery of secondary	23.8	17.7	15.7	15.2	15.8	9.6	10.3	11.7	9.4	6.8	7.9
6. − Exports of aluminum ingot	28.1	28.2	28.2	27.6	10.8	11.4	12.9	9.6	9.5	9.4	24.1
7. − Exports of mill products	110.2	111.8	86.6	76.2	73.2	81.9	74.6	62.1	66.2	42.8	50.0
8. = Apparent aluminum consumption	116.3	79.4	93.7	93.4	117.8	92.9	72.8	94.4	81.4	91.8	81.5
11. + Inventory change	+7.7	−16.2	+4.2	−6.0	+14.3	−0.7	−16.1	+2.0	−6.1	—	+5.1
12. = Aluminum consumption	108.7	95.6	89.5	99.3	103.5	93.6	88.8	92.4	87.5	91.8	76.4
13. ÷ Mid-year population (mill.)	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
14. = Per capita consumption (lbs.)(1)	31.1	21.2	24.9	24.9	31.4	24.8	19.4	25.1	21.7	24.4	21.7
15. = Per capita consumption (lbs.)(2)	28.9	25.5	23.8	26.5	27.6	25.0	23.7	24.7	23.3	24.4	20.4

NOTES:
(1) Without inventory change
(2) Adjusted for inventory change

SOURCE: Fachverband Der Metallindustrie Osterreichs

Detail may not add to totals due to rounding.

BAHRAIN

	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
1. + Primary aluminum production	193.7	189.3	188.5	156.5	139.0	140.1	135.7	136.8	135.7	129.0	132.4
5. + Recovery of secondary	—	—	1.7	—	—	—	—	—	—	—	—
6. – Exports of aluminum ingot	185.6	210.0	173.1	91.5	86.0	144.5	147.8	130.1	139.0	94.9	115.8
7. – Exports of mill products	14.6	19.8	13.2	16.5	18.7	6.6	5.5	3.3	3.3	2.2	2.2
8. = Apparent aluminum consumption	– 6.3	– 40.6	3.4	48.5	34.2	– 11.0	– 17.6	3.3	– 6.6	32.0	14.3
9. + Beginning inventory	56.9	101.1	99.2	52.9	22.1	37.5	57.4	57.4	67.3	38.6	27.6
10. – Ending inventory	46.2	56.9	101.1	99.2	52.9	22.1	37.5	57.4	57.4	67.3	38.6
11. ± Inventory change	– 10.7	– 44.2	+ 1.9	+ 46.3	+ 30.8	– 15.4	– 19.9	—	– 9.9	+ 28.7	+ 11.0
12. = Aluminum consumption	4.4	3.6	2.0	2.2	3.4	4.4	2.3	3.3	3.3	3.3	3.3
13. ÷ Mid-year population (mill.)	0.400	0.384	0.371	0.351	0.335	0.320	0.305	0.293	0.279	0.265	0.254
14. = Per capita consumption (lbs.)(1)	– 31.5	– 211.3	18.3	276.4	204.2	na	na	22.5	na	241.5	112.6
15. = Per capita consumption (lbs.)(2)	22.0	18.9	10.8	13.2	20.3	27.5	15.1	22.5	23.7	24.9	26.0

NOTES:
(1) Without inventory change
(2) Adjusted for inventory change

SOURCE: Aluminium Bahrain B.S.C.

BELGIUM

	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
3. + Imports of ingot	346.9	319.3	294.8	270.0	278.3	278.7	294.1	262.8	284.5	207.5	278.9
4. + Imports of mill products(1)	103.2	99.8	95.8	69.3	71.5	96.0	84.7	83.0	86.3	59.0	61.5
5. + Recovery of secondary	—	—	—	—	—	1.1e	1.1e	3.3e	2.9e	2.2e	3.0e
6. – Exports of ingot	10.8	19.1	15.2	32.7	21.6	11.9	11.2	14.4	15.6	11.0	24.4
7. – Exports of mill products(1)	306.0	296.6	273.9	227.4	226.1	270.5	256.1	241.8	231.6	184.8	202.2
8. = Apparent aluminum consumption(2)	133.3	103.4	101.4	79.3	102.2	99.3	96.2	104.7	114.4	81.1	112.7
13. + Mid-year population (mill.)	9.9	9.9	9.9	9.9	9.9	9.8	9.8	9.8	9.8	9.8	9.8
14. = Per capita consumption (lbs.)(3)	27.1	21.0	20.6	16.1	20.6	20.3	19.6	21.4	23.4	16.5	23.0

NOTES:
(1) Excludes thin foil
(2) Excludes thin foil, welded tubes and blanks Stated consumption will not add from lines 3, 4, 5, 6, & 7
(3) Without inventory change
e — estimated

SOURCE: Federation Des Enterprises De Metaux Non Ferraux

BRAZIL

	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
1. + Primary aluminum production	501.5	441.7	329.6	282.6	287.3	262.5	205.5	184.2	153.4	133.7	125.2
3. + Imports of ingot	5.1	3.3	11.9	31.2	51.5	57.1	66.6	91.3	86.1	86.8	115.5
4. + Imports of mill products	5.5	3.1	4.3	9.6	24.6	30.1	16.3	32.3	17.0	17.2	23.2
5. + Recovery of secondary	52.0	49.6r	47.3r	46.1r	54.7r	64.4r	54.2	36.9	30.9	22.7	24.7
6. – Exports of ingot	163.1	128.2	7.4	2.4	—	—	—	—	—	—	—
7. – Exports of mill products	63.2	58.8	12.9	20.5	12.7	9.5	4.3	3.1	2.0	2.0	2.0
8. = Apparent aluminum consumption	337.9	310.7r	372.8r	346.6r	405.3r	404.5r	338.3	341.6	285.4	258.5	286.6
11. ± Inventory change	24.7	– 18.1	+ 23.4	+ 22.9	+ 12.0	+ 26.7	+ 7.1	+ 19.4	—	– 18.4	+ 34.5
12. = Aluminum consumption	313.2	329.3r	349.4r	323.6r	393.3	377.9	331.2	322.2	285.4	276.9	252.1
13. ÷ Mid-year population (mill.)	132.6	129.6r	126.8r	124.0r	119.1	116.3	113.5	110.8	108.1	105.5	103.0
14. = Per capita consumption (lbs.)(1)	5.1	4.9r	6.0r	5.5r	6.8r	7.1r	6.0	6.2	5.3	4.9	5.6
15. = Per capita consumption (lbs.)(2)	4.6	5.1r	5.5	5.3	6.6r	6.4	5.8	5.8	5.3	5.2	4.9

NOTES:
(1) Without inventory change
(2) Adjusted for inventory change
r—Revised

SOURCE: Associacao Brasileira do Alumino

Detail may not add to totals due to rounding.

Per Capita Aluminum Consumption—Continued

CAMEROON

Thousands of short tons

	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
1. + Primary production	80.6	85.3	87.0	72.1	47.4	49.2	45.5	50.9	53.7	57.2	51.6
3. + Imports of ingot	—	—	—	—	—	0.9	0.1	—	—	—	—
4. + Imports of mill products	—	—	1.0	1.0	1.0	0.4	0.3	1.3	2.0	0.9	0.4
6. – Exports of aluminum ingot	54.5	56.3	61.1	49.1	14.7	22.3	16.9	26.3	22.9	27.6	23.5
7. – Exports of mill products	7.4	10.8	11.8	7.7	5.6	11.0	11.1	6.0	4.9	7.9	4.6
8. = Apparent aluminum consumption	18.7	18.2	15.1	16.3	28.2	17.2	18.0	20.0	27.9	22.6	23.9
11. ± Inventory change	−1.2	−1.8	−0.6	+1.7	+2.0	−1.9	+2.5	−1.0	+0.3	+0.8	−1.2
12. = Aluminum consumption	20.0	20.0	15.7	14.7	26.2	19.1	15.4	20.9	27.6	21.8	25.1
13. ÷ Mid-year population (mill.)	9.16	8.87	8.65	8.50	8.25	8.06	7.91	7.91	6.53	6.40	6.28
14. = Per capita consumption (lbs.)(1)	4.0	4.1	3.5	3.7	6.8	4.3	4.6	5.1	8.6	7.1	7.6
15. = Per capita consumption (lbs.)(2)	4.4	4.5	3.6	3.5	6.4	4.7	3.9	5.3	8.4	6.8	8.0

NOTES: na Not available at publication time

SOURCE: Societé de Vente de l'Aluminium Pechiney

CANADA

	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
1. + Primary aluminum production	1,348.2	1,206.0	1,179.4	1,232.5	1,183.9	951.6	1,158.0	1,076.3	695.5	969.9	1,111.8
3. + Imports of ingot	43.1	33.7	26.9	15.8	10.9	26.5	12.7	22.9	24.9	20.1	52.9
4. + Imports of mill products	207.2	134.5	121.9	137.9	130.2	158.9	118.7	106.9	102.9	67.7	119.2
5. + Recovery of secondary	77.2	61.7	55.1	71.6e	71.8	93.1	82.5	53.2	47.0	42.9	39.9
6. – Exports of ingot	919.5	1,020.1	988.1	799.7	865.0	606.8	950.8	722.3	559.4	561.0	751.2
7. – Exports of mill products	110.3	71.8	46.5	44.6	43.7	39.8	43.9	48.0	31.1	26.9	52.1
8. = Apparent consumption	650.8	344.1	348.7	613.4	488.1	583.9	377.2	489.1	279.8	512.7	520.5
11. ± Inventory change	+212.4	−58.3	8.7	+176.4	+63.8	+143.7	−42.1	+122.7	−75.4	189.3	123.9
12. = Aluminum consumption	438.4	402.5	357.4	437.1	424.3	440.1	419.2	366.4	355.2	323.4	396.6
13. ÷ Mid-year population (mill.)	25.1	24.9	24.6	24.2	23.9	23.7	23.5	23.3	23.1	22.8	22.4
14. = Per capita consumption (lbs.)(1)	51.8	27.6	28.3	50.7	37.5	49.3	32.1	42.0	24.2	45.0	46.4
15. = Per capita consumption (lbs.)(2)	34.8	32.3	29.1	36.1	35.5	37.1	35.7	31.5	30.8	28.4	35.4

NOTES:
(1) Without inventory change
(2) Adjusted for inventory change
e — Estimated
r — Revised

SOURCE: Statistics Canada and Alcan Canada Products Ltd.

DENMARK

	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
3. + Imports of ingot	37.6	30.9	27.7r	23.4	26.7	24.8	20.7	17.4	14.6	7.6	9.4
4. + Imports of mill products	60.5	55.0r	48.4r	44.6r	50.0r	54.9r	64.0	59.5	62.6	43.7	59.4
5. + Recovery of secondary	n/a	30.9	35.6	33.4	27.4	34.3	30.5	22.6	15.4	16.6	19.1
6. – Exports of aluminum ingot	28.1	26.5	22.2r	22.2r	20.8	23.7	19.0	15.0	10.4	8.2	9.9
7. – Exports of mill products	18.7	16.5r	11.5r	9.3r	12.6r	9.1r	13.8	13.3	12.7	10.1	12.6
8. = Apparent aluminum consumption	n/a	73.8r	78.0	69.9	70.7	81.5r	82.3	71.2	69.6	49.6	65.4
13. ÷ Mid-year population (mill.)	5.11	5.11	5.12	5.12	5.12	5.12	5.10	5.09	5.07	5.06	5.05
14. = Per capita consumption (lbs.)(1)	n/a	28.9r	30.5	27.3r	27.6r	31.8r	32.2	28.0	27.4	19.6	25.9

NOTES:
(1) Without inventory change
r—Revised

SOURCE: Danmarks Statistik

Detail may not add to totals due to rounding.

FINLAND

	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
3. + Imports of ingot	22.8	29.0	30.0	31.7	29.4	27.4	23.9	31.5	27.0	21.2	25.6
4. + Imports of mill products	27.0	26.5	24.7	24.1	31.7	29.5	22.4	32.6	34.8	29.3	38.9
5. + Recovery of secondary	7.5	6.0	7.5	—	7.3	8.4	6.1	10.3	8.0	6.8	6.4
6. – Exports of aluminum ingot	15.0	11.8	6.9	5.1	4.3	1.4	3.0	3.6	1.3	0.5	0.9
7. – Exports of mill products	23.7	21.7	20.0	24.3	29.9	24.6	20.9	25.0	19.8	17.7	17.2
8. = Apparent aluminum consumption	18.6	27.9	35.3	33.7	34.3	39.4	28.4	45.8	48.7	50.2	52.8
13. ÷ Mid-year population (mill.)	4.9	4.9	4.8	4.8	4.8	4.8	4.8	4.7	4.7	4.7	4.7
14. = Per capita consumption (lbs.)[1]	7.7	11.5	14.6	14.1	14.3	16.5	12.0	19.3	20.6	21.3	22.4

NOTES:
(1) Without inventory change

SOURCE: Central Statistical Office of Finland

FRANCE

	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
1. + Primary aluminum production	376.4	397.7	430.3	480.2	476.1	435.5	431.4	439.6	424.5	421.7	433.7
3. + Imports of ingot	402.3	435.0	388.0	331.1	366.4	347.6	320.9	303.5	277.1	240.2	289.8
4. + Imports of mill products	222.4	228.0	225.3	209.8	231.4	205.4	158.7	156.1	187.2	115.3	144.6
5. + Recovery of secondary	185.7	187.4	169.4	187.2	187.4	182.7	177.2	168.1	151.0	125.7	140.6
6. – Exports of ingot	161.6	177.1	201.4	210.0	195.5	173.7	183.4	182.8	164.5	180.7	198.2
7. – Exports of mill products	309.5	324.7	289.9	273.9	253.5	286.5	236.6	207.5	178.0	142.1	152.1
8. = Apparent aluminum consumption	715.8	746.2	721.8	724.3	812.2	710.9	668.3	677.0	697.3	580.1	658.3
11. ± Inventory change	+6.8	+5.5	–20.0	+24.3	+4.2	–39.9r	–6.7	–11.8	–4.2	+40.9	+7.8
12. = Aluminum consumption	709.0	740.6	741.7	701.1	808.0	750.8	675.0	688.8	701.5	539.2	650.5
13. ÷ Mid-year population (mill.)	54.7	54.4	54.3	53.9	53.7	53.5r	53.1	53.0	52.9	52.9	52.1
14. = Per capita consumption (lbs.)[1]	24.7	27.4	26.6r	26.9	30.3	26.6r	25.2	25.5	26.4	22.0	25.2
15. = Per capita consumption (lbs.)[2]	26.0	27.2	27.3	26.0	30.1	28.1r	25.4	26.0	26.5	20.5	25.0

NOTES:(1) Without inventory change
(2) Adjusted for inventory change

SOURCE: Societe de Vente de l'Aluminium Pechiney

GERMANY, FEDERAL REPUBLIC OF

	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
1. + Primary aluminum production	856.7	819.3	796.7	803.5	805.5	817.8	815.3	817.7	768.4	747.1	759.2
3. + Imports of ingot	796.7	652.7	623.1	551.2	671.1	563.8	478.4	485.5	459.9	317.0	379.7
4. + Imports of mill products	336.5	329.6	289.1	264.7	313.2	289.1	226.5	235.7	220.6	151.3	155.6
5. + Recovery of secondary	530.0	505.8r	438.8	455.7	468.5	468.9	434.7	390.4	353.6	296.8	326.4
6. – Exports of ingot	324.3	354.0	281.5	278.9	246.6	273.1	299.4	219.5	310.2	176.1	192.4
7. – Exports of mill products	615.1	565.4	495.7	448.5	427.6	436.0	383.8	332.8	302.7	211.6	297.9
8. = Apparent aluminum consumption	1,580.6	1,388.1r	1,370.6	1,347.6	1,584.0	1,430.6	1,271.7	1,377.0	1,189.6	1,124.5	1,130.6
11. ± Inventory change	+54.2	–89.7	+52.9	–32.2	+94.6	–61.9	–44.2	+94.5	–121.3	+129.2	+10.6
12. = Aluminum consumption	1,526.4	1,477.9r	1,317.7	1,379.7	1,489.4	1,492.5	1,315.9	1,282.5	1,310.9	995.3	1,120.0
13. ÷ Mid-year population (mill.)	61.2	61.4	61.3	61.7	61.3	61.4	61.3	61.4	61.5	61.8	62.1
14. = Per capita consumption (lbs.)[1]	51.6	45.1r	44.8	43.8	51.7	46.6	41.5	44.9	38.7	36.4	36.4
15. = Per capita consumption (lbs.)[2]	49.8	48.1r	43.0	44.8	48.6	48.6	42.9	41.8	42.6	32.2	36.1

NOTES:
(1) Without inventory change
(2) Adjusted for inventory change

SOURCE: Aluminium-Zentrale e.V.

Detail may not add to totals due to rounding.

Per Capita Aluminum Consumption—Continued

Thousands of short tons

GREECE

	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
1. + Primary aluminum production	na	150.1	195.5	204.6	202.8	185.2	160.5	144.8	148.0	149.6	164.2
3. + Imports of ingot	7.2	2.3	4.4r	3.1	0.1	0.3	0.3	5.0	4.0	1.0	1.9
4. + Imports of mill products	6.1	5.8	4.5r	4.9r	4.3	3.9	3.3	4.2	2.8	2.0	2.4
6. − Exports of aluminum ingot	53.4	60.7	73.4	76.3	66.4	81.6	93.9	85.4	98.0	98.2	112.2
7. − Exports of mill products	53.5	44.8	32.5	29.7r	36.0	33.1	29.2	26.7	19.8	10.1	17.7
8. = Apparent aluminum consumption	na	52.7	98.5r	106.6r	104.4	74.7	41.0	41.9	37.0	44.3	38.6
13. ÷ Mid-year population (mill.)	na	9.9	9.8	9.7	9.6	9.5	9.4	9.3	9.2	9.1	9.0
14. = Per capita consumption (lbs.)(1)	na	10.6	20.1r	22.0	21.8	15.7	8.7	9.0	8.1	9.8	8.6

NOTES:
(1) Without inventory change
e—Estimated
na—Not available at time of publication

SOURCE: National Statistical Service of Greece.

ICELAND

	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
1. + Primary aluminum production	88.6	83.9r	82.9	81.0r	80.6	78.3	81.3	77.9	71.9	64.9	75.4
4. + Imports of mill products	2.3	3.3	2.8	3.2	2.5	2.0	3.2	2.1	2.0	1.7	2.3
6. − Exports of aluminum ingot	88.1	117.8r	67.8	70.7	74.3	85.1	83.6	81.8	85.5	48.1	69.5
8. = Apparent aluminum consumption	2.8	−30.6r	17.9	13.5r	8.8	−4.9	1.0	−1.8	−11.7	18.5	8.2
9. + Beginning inventory	3.3	37.3	22.2	11.6	5.3	12.5	13.2	17.1	30.8	14.0	8.2
10. − Ending inventory	3.9	3.3	37.3	22.2	11.6	5.3	12.5	13.2	17.1	30.8	14.0
11. ± Inventory change	+0.6	−34.0	+15.1	+9.6	+6.3	−7.2	−0.8	−3.9	−13.7	+16.8	+5.8
12. = Aluminum consumption	2.2	3.4r	2.8	3.9r	2.5	2.3	1.8	2.1	2.0	1.8	2.2
13. ÷ Mid-year population (mill.)(1)	0.240	0.238	0.235	0.229	0.228	0.226	0.223	0.222	0.220	0.218	0.216
14. = Per capita consumption (lbs.)(2)	23.3	257.1	151.9	117.9r	77.2	na	8.9	na	na	169.7	75.9
15. = Per capita consumption (lbs.)(3)	18.3	28.6r	23.4	34.1	21.9	20.4	15.9	18.9	18.2	16.5	22.5

NOTES:
(1) Because of its small population, shown in fine detail
(2) Without inventory change
(3) Adjusted for inventory change

SOURCE: Icelandic Aluminium Co. Ltd.

INDONESIA

	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
3. + Imports of ingot	na	na	na	na	na	16.7	13.5	12.9	9.3	7.7	5.2
4. + Imports of mill products	na	na	na	na	na	27.9	24.0	24.2	23.0	22.3	22.2
5. + Recovery of secondary	na	na	na	na	na	—	*	*	*	162.6	69.5
7. − Exports of mill products	na	na	na	na	na	0.2	0.1	0.2	0.2	—	—
12. = Apparent aluminum consumption	na	na	na	na	na	44.3	37.5	36.7	32.0	192.6	96.9
13. ÷ Mid-year population (mill.)	na	na	na	na	na	138.0	135.3	132.6	130.2	132.0	129.0
14. = Per capita consumption	na	na	na	na	na	0.6	0.6	0.6	0.5	2.9	1.5

NOTES:
(1) Without inventory change
na Not received at publication time

** Less than 50 tons*

SOURCE: Department of Mines and Energy, Indonesia

Detail may not add to totals due to rounding.

IRAN

	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
1. + Primary aluminum production	na	na	na	na	na	na	na	23.2	33.8	45.3	55.9
3. + Imports of ingot	na	na	na	na	na	na	na	14.3	11.0	—	—
4. + Imports of mill products	na	na	na	na	na	na	na	18.7	20.9	3.0	9.9
5. + Recovery of secondary	na	na	na	na	na	na	na	5.5	7.2	17.0	7.1
6. – Exports of ingot	na	na	na	na	na	na	na	—	—	14.0	19.8
7. – Exports of mill products	na	na	na	na	na	na	na	—	—	—	0.2
8. = Apparent aluminum consumption	na	na	na	na	na	na	na	61.8	72.9	51.3	52.9
9. + Beginning inventory	na	na	na	na	na	na	na	13.9	11.7	9.4	6.2
10. – Ending inventory	na	na	na	na	na	na	na	3.3	13.9	10.6	13.2
11. ± Inventory change	na	na	na	na	na	na	na	– 10.5	+ 2.2	+ 1.2	+ 7.0
12. = Aluminum consumption	na	na	na	na	na	na	na	72.4	70.7	50.1	45.9
13. ÷ Mid-year population (mill.)	na	na	na	na	na	na	na	33.5	34.0	33.5	32.5
14. = Per capita consumption (lbs.)(1)	na	na	na	na	na	na	na	3.7	4.3	3.1	3.2
15. = Per capita consumption (lbs.)(2)	na	na	na	na	na	na	na	4.3	4.2	3.0	2.8

NOTES:
(1) Without inventory change
(2) Adjusted fo inventory change
na Not received at publication time

SOURCE: Industrial Development and Renovation Organization of Iran

IRISH REPUBLIC

	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
3. + Imports(1)	38.5	39.9	34.0	31.5	34.4	32.8	28.1	22.8	22.9	15.4	21.4
6. – Exports (1)	21.6	25.4	18.6	16.0	18.0	14.3	10.6	10.4	8.3	8.8	5.0
8. = Apparent aluminum consumption(2)	16.9	14.6	15.3	15.5	16.4	18.5	17.5	12.5	14.6	6.6	16.4
13. ÷ Mid-year population (mill.)	3.5	3.5	3.4	3.4	3.4	3.4	3.3	3.2	3.2	3.2	3.1
14. = Per capita consumption (lbs.)(2)	9.5	8.3	8.8	9.1	9.6	10.9	10.6	7.9	9.1	4.1	10.6

NOTES:
(1) Includes ingot and mill products
(2) Without inventory change

SOURCE: Central Statistics Office, Dublin

ISRAEL

	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
3. + Imports of ingot	na	na	na	na	na	na	na	18.7	16.0	na	27.6
4. + Imports of mill products	na	na	na	na	na	na	na	12.1	15.1	na	3.6
5. + Recovery of secondary	na	na	na	na	na	na	na	1.1	1.1	na	0.3
6. – Exports of ingot	na	na	na	na	na	na	na	4.4	5.7	na	—
7. – Exports of mill products	na	na	na	na	na	na	na	10.5	8.8	na	2.8
8. = Apparent aluminum consumption	na	na	na	na	na	na	na	17.1	17.6	na	28.7
13. ÷ Mid-year population (mill.)	na	na	na	na	na	na	na	3.6	3.6	na	3.4
14. = Per capita consumption (lbs.)(1)	na	na	na	na	na	na	na	9.4	9.9	na	16.9

NOTES:
(1) Without inventory change
na Not received at publication time

SOURCE: The Israel Aluminium Association

Detail may not add to totals due to rounding

Per Capita Aluminum Consumption—Continued

ITALY

Thousands of short tons

	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
1. Primary aluminum production	253.7	215.7	256.7	301.8	298.9	296.6	298.5	286.7	227.6	209.6	233.8
3. + Imports of ingot	321.7	280.5	232.8	230.2	325.0	260.8	210.0	215.5	216.5	122.4	282.2
4. + Imports of mill products	129.9	121.6	91.8	89.9	123.0	99.4	66.9	65.0	54.4	39.1	75.6
5. + Recovery of secondary	371.5	367.1	312.0	316.4	328.5	284.4	262.3	261.2	227.0	175.3	225.9
6. − Exports of ingot	35.5	45.5	59.6	54.9	13.0	24.7	76.4	26.7	10.4	36.7	25.7
7. − Exports of mill products	127.6	123.7	111.2	103.4	95.2	121.1	116.5	95.7	91.7	64.7	66.0
8. = Apparent aluminum consumption	913.6	815.7	722.4	780.0	967.2	795.4	644.8	706.1	623.4	445.0	725.8
11. ± Inventory change	+32.8	−14.4	−41.9	+5.3	+63.2	+11.4	−41.9	+35.7	+10.6	+20.0	+78.2
12. = Aluminum consumption	880.7	830.1	764.3	774.7	904.0	784.1	686.7	670.4	612.8	425.0	647.6
13. ÷ Mid-year population (mill.)	57.0	56.8	56.3	56.1	55.9	55.8	55.7	55.4	56.2	55.8	55.4
14. = Per capita consumption (lbs.)(1)	32.0	28.7	25.6	27.8	34.6	28.4	23.1	25.6	22.2	15.9	26.2
15. = Per capita consumption (lbs.)(2)	30.9	29.3r	27.1	27.6	32.4	28.0	24.7	24.3	21.8	15.2	23.3

NOTES:
(1) Without inventory change
(2) Adjusted for inventory change
na—Not received at publication time

SOURCE: Associazione Nazionale Industrie Metalli Non Ferrosi

JAPAN

	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
1. + Primary aluminum production	320.9	285.1	391.4	856.3	1,207.8	1,118.0	1,170.4	1,314.9	1,017.7	1,120.1	1,238.6
2. ± Stockpile adjustment	+24.3	−70.0r	−66.4r	−24.3	—	24.3	−13.6	10.5	10.5	—	—
3. + Imports of ingot	1,485.7	1,767.8	1,594.6	1,244.8	1,003.2	825.0	815.9	588.4	474.1	417.1	527.7
4. + Imports of mill products	43.0	37.0	30.4	33.1	49.5	35.4	29.6	23.9	22.9	24.1	47.1
5. + Recovery of secondary	763.7	771.6	617.8	606.4	620.6	524.8	545.0	431.8	326.5	226.2	253.4
6. − Exports of ingot	2.5	1.9	7.4	13.4	8.4	8.8	60.2	109.8	76.8	92.1	38.4
7. − Exports of mill products	250.7	217.2	170.7	125.6	80.5	108.5	163.7	95.5	73.0	56.6	36.4
8. = Apparent aluminum consumption	2,484.3	2,572.4r	2,389.8r	2,577.3	2,792.2r	2,410.1r	2,323.4	2,164.4	1,702.0	1,638.8	1,992.0
9. + Beginning inventory	142.1	204.4r	339.5r	232.4r	116.3r	188.8r	284.6	134.6	442.4	292.6	94.1
10. − Ending inventory	138.2	142.1r	204.4r	339.5r	232.4r	116.3r	188.8r	284.6	134.6	442.4	296.2
11. ± Inventory change	−3.9	−62.3r	−135.1r	+107.1r	+116.1r	−72.5r	−95.8r	+150.0	−307.8	+146.2	+202.1
12. = Aluminum consumption	2,388.1	2,634.7r	2,524.9r	2,470.1r	2,676.2r	2,482.6r	2,419.2r	2,014.4	2,009.8	1,492.6	1,789.9
13. ÷ Mid-year population (mill.)	120.2	119.5	118.8	117.9	117.1	116.1	114.9	113.9	112.4	111.0	110.1
14. = Per capita consumption (lbs.)(1)	39.7	43.0r	40.1r	43.7	47.6r	41.4r	40.4	38.0	30.3	29.5	36.2
15. = Per capita consumption (lbs)(2)	39.7	44.1r	42.5r	41.9	45.6r	42.8r	42.1r	35.4	35.8	26.9	32.5

NOTES:
(1) Without inventory change
(2) Adjusted for inventory change
r—Revised

SOURCE: Japan Aluminum Federation

KOREA, REPUBLIC OF

	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
1. + Primary production	na	13.9	14.8	17.2	17.6	17.6	17.7	17.3	17.6	17.7	17.7
3. + Imports of ingot	na	147.7	105.0	98.6	63.6	80.6	85.6	62.4	32.4	16.5	17.5
4. + Imports of mill products	na	37.5	24.0	17.0	20.0	22.6	20.4	15.8	12.0	9.0	8.7
5. + Recovery of secondary	na	14.7	13.3	11.5	7.8	10.2	8.9	7.3	6.8	1.7	1.7
6. − Exports of ingot	na	—	—	—	1.5	0.6	1.0	—	—	—	—
7. − Exports of mill products	na	22.8	24.0	25.7	35.0	9.0	13.0	15.0	8.0	2.7	5.0
8. = Apparent consumption	na	190.9	133.1	118.6	72.5	121.4	118.6	87.8	60.8	42.2	40.6
13. ÷ Mid-year populatioin (mill.)	na	40.0	39.3	38.7	38.2	37.6	37.0	36.4	35.9	35.3	34.7
15. = Per capita consumption (lbs.)(1)	na	9.6	3.4	3.1	1.9	3.2	3.2	2.4	1.7	1.2	1.2

(1) Without inventory change
na—not received at publication time
Detail may not add to totals due to rounding.

SOURCE: Ministry of Commerce and Industry, Rep. of Korea

MEXICO, D.F.

	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
1. + Primary aluminum production	48.5	43.8	45.4	47.6	47.0	47.6	47.5	47.1	46.7	44.0	45.4
3. + Imports of aluminum ingot	28.7	12.2	35.6	64.8	70.0	61.8	43.4	9.3	17.2	13.1	28.8
4. + Imports of mill products	38.0	14.2	68.6	91.4	54.5	40.1	32.2	18.0	33.9	36.6	24.8
5. + Recovery of secondary	21.6	16.7	28.4	22.4	18.9	16.4	13.5	8.2	10.8	10.3	10.9
6. – Exports of aluminum ingot	0.7	0.6	—	—	(a)	—	—	0.1	0.1	0.1	0.2
7. – Exports of mill products	8.3	1.8	1.4	3.5	3.7	3.4	4.1	2.7	1.7	1.2	3.0
8. = Apparent aluminum consumption	127.8	84.2	176.6	222.7	186.6	162.6	132.7	80.0	106.7	102.7	106.6
9. + Beginning inventory	8.3	14.8	5.0	2.2	1.7	2.0	2.8	4.8	2.2	1.3	1.6
10. – Ending inventory	6.6	8.3	14.8	5.0	2.2	1.7	2.0	2.8	4.8	2.2	1.3
11. = Inventory change	–1.7	–6.5	+9.8	+2.8	+0.5	–0.3	–0.8	–2.0	+2.6	+0.9	–0.3
12. = Aluminum consumption	129.6	90.6	166.8	219.9	186.1	162.9	133.5	82.0	104.1	101.9	107.0
13. ÷ Mid-year population (mill.)	73.0	72.0	70.0	68.0	67.0	67.0	64.7	62.5	60.4	58.3	56.2
14. = Per capita consumption (lbs.)(1)	3.5	2.3	5.1	6.6	5.6	4.9	4.1	2.6	3.5	3.5	3.8
15. = Per capita consumption (lbs.)(2)	3.5	2.5	4.9	6.5	5.6	4.9	4.1	2.6	3.4	3.5	3.8

NOTES:
(1) Without inventory change
(2) Adjusted for inventory change
(a) Less than 0.5 thousand short tons

SOURCE: Instituto del Aluminio, A.C.

NETHERLANDS

	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
1. + Primary aluminum production	274.7	259.5	276.6	288.9	284.6	281.7	285.8	261.1	274.4	284.0	272.8
3. + Imports of ingot	146.6	142.2r	215.5	177.8	237.9	185.0	160.4	178.9	178.7	133.8	175.0
4. + Imports of mill products	128.5	127.5r	116.2	101.9	124.9	117.4	91.5	101.1	104.8	64.3	80.8
5. + Recovery of secondary	66.0	64.2	54.9	55.3	58.9	51.4	48.5	45.9	42.4	37.8	na
6. – Exports of aluminum ingot	307.5	305.7r	386.7	388.0	402.7	396.2	324.5	348.5	320.0	291.2	324.1
7. – Exports of mill products	118.3	117.7r	92.7	95.3	108.8	97.3	74.6	84.5	88.6	60.2	74.0
8. = Apparent consumption	190.0	169.9r	183.8	140.3	194.8	142.0	187.0	153.9	191.7	168.4	130.5
9. + Beginning inventory(3)	11.8	11.8	8.6	11.4	8.7	48.2	39.0	59.7	70.9	23.3	29.4
10. – Ending inventory(3)	7.5	12.7	10.6	9.6	11.4	8.5	66.1	38.9	62.2	65.7	43.5
11. = Inventory change	–4.3	+0.9	+2.0	–1.8	+2.6	–39.8	+27.2	–20.8	–8.7	+42.4	+14.1
12. = Aluminum consumption	194.3	169.1r	181.8	142.1	192.1	181.8	159.8	174.7	200.4	126.0	116.4
13. ÷ Mid-year populatioin (mill.)	14.5	14.4	14.3	14.2	14.1	14.0	13.9	13.9	13.8	13.7	13.6
14. = Per capita consumption (lbs.)(1)	26.2	23.6r	25.7	19.8	27.6	20.3	26.9	22.0	27.8	24.7	19.2
15. = Per capita consumption (lbs.)(2)	26.9	23.6r	25.4	20.1	27.2	26.0	23.0	25.1	29.1	18.3	17.1

NOTES:
(1) Without inventory change
(2) Adjusted for inventory change
(3) Primary Metal only

na Not available
r — Revised

SOURCE: Vereniging Netherlands Aluminium Institut

NEW ZEALAND

	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
1. + Primary production	266.3	242.6	179.8	170.1	170.3	169.9	165.2	158.3	152.6	119.0	120.2
3. + Imports of ingot	1.5	7.3	8.0	3.7	—	—	—	—	—	1.4	1.3
4. + Imports of mill products	4.0	3.2	3.4	2.9	2.7	3.7	3.1	3.7	2.3	4.4	9.7
5. + Recovery of secondary(e)	4.1	3.3	3.0	3.3	2.2	2.2	2.0	2.0	1.7	1.3	2.3
6. – Exports of ingot	234.6	231.9	154.7	138.3	139.1	130.7	147.8	134.4	119.2	106.2	110.6
7. – Exports of mill products	6.8	6.0	8.5	6.3	5.9	3.0	2.1	1.3	0.5	0.2	0.1
8. = Apparent aluminum consumption	34.5	18.5	31.1	35.4	30.2	42.0	20.3	28.2	36.9	19.8	22.8
11. ± Inventory change	+0.8	–10.8	+6.6	+3.3	+3.6	+12.2	–6.4	+0.6	+4.7	–3.5	–18.5
12. = Aluminum consumption	33.7	29.3	24.5	32.1	26.6	29.8	26.7	27.6	32.2	23.4	41.3
13. ÷ Mid-year populatioin (mill.)	3.23	3.19	3.16	3.13	3.10	3.15	3.13	3.13	3.12	3.09	3.03
14. = Per capita consumption (lbs.)(1)	21.3	11.6	19.6	22.5	19.5	26.7	13.0	18.1	23.7	12.8	15.1
15. = Per capita consumption (lbs.)(2)	20.8	18.4	15.4	20.5	17.2	19.0	17.1	17.6	20.7	15.1	27.3

NOTES:
(1) Without inventory change
(2) Adjusted for inventory change
Detail may not add to totals due to rounding.

SOURCE: Comalco Limited, and New Zealand Dept of Statistics

Per Capita Aluminum Consumption—Continued

Thousands of short tons

NICARAGUA

	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
3. + Imports of ingot	na	na	na	na	na	na	0.6	1.3	0.6	0.5	0.4
4. + Imports of mill products	na	na	na	na	na	na	1.0	1.4	1.0	1.2	1.5
6. − Exports of aluminum ingot	na	na	na	na	na	na	0.9	1.1	0.3	0.1	*
8. = Apparent aluminum consumption	na	na	na	na	na	na	0.7	1.5	1.2	1.5	1.9
13. ÷ Mid-year population (mill.)	na	na	na	na	na	na	2.4	2.3	2.2	2.2	2.1
14. = Per capita consumption (lbs.)(1)	na	na	na	na	na	na	0.5	1.3	1.0	1.4	1.8

NOTES:
(1) Without inventory change

na Not received at publication time
** Less than .05 thousand short tons*

SOURCE: Ministerio de Economia Industria y Comercio, Managua

NORWAY

	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
1. + Primary aluminum production	838.6	788.6	711.1	701.2	729.7	742.4	724.1	702.1	684.3	655.9	714.8
3. + Imports of ingot	34.8	12.3	23.1	16.3	18.1	9.8	8.8	9.4	35.0	21.3	30.7
4. + Imports of mill products	57.1	46.7	41.0	42.4	46.9	33.0	37.9	44.5	31.2	29.9	32.7
5. + Recovery of secondary	2.5	0.8	3.1	3.1	3.9	4.0	4.4	4.4	5.5	7.7	8.6
6. − Exports of ingot	704.0	702.6	601.2	577.6	574.5	623.1	694.6	612.1	619.1	497.8	611.1
7. − Exports of mill products	101.2	115.9	84.7	82.6	78.9	80.1	67.3	52.2	59.6	47.0	50.1
8. = Apparent aluminum consumption	127.9	30.0	92.3	102.9	145.1	85.9	13.4	96.2	77.3	170.0	125.6
11. ± Inventory change	+29.5	−30.2	−31.3	+17.4	+42.7	−20.4	−78.7	−5.7	−34.2	+82.6	+22.3
12. = Aluminum consumption	98.3	60.2	123.6	85.5	102.4	106.3	92.1	101.9	111.5	87.4	103.3
13. ÷ Mid-year population (mill.)	4.1	4.1	4.1	4.1	4.1	4.0	4.0	4.0	4.0	4.0	4.0
14. = Per capita consumption (lbs.)(1)	62.4	14.6	45.0	50.2	70.8	43.0	6.8	48.1	38.7	85.0	62.8
15. = Per capita consumption (lbs.)(2)	48.1	29.4	49.8	41.7	50.0	53.1	46.1	50.9	55.8	43.6	51.6

NOTES:
(1) Without inventory change
(2) Adjusted for inventory change

SOURCE: Skan Aluminium

PANAMA

	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
3. + Imports of ignot	1.3	1.3	1.3	1.7	1.8	1.5	1.0	1.1	1.8	1.7	2.5
4. + Imports of mill products	4.0	1.8	0.1	0.2	0.1	0.3	0.3	0.3	0.3	0.3	0.4
5. + Recovery of secondary	0.7	0.7	0.7	0.6	0.4	0.4	0.3	0.6	0.4	0.3	0.4
6. − Exports of Ignot	0.3	0.2	—	—	—	—	—	—	—	—	—
7. − Exports of mill products	0.4	0.3	0.3	0.2	0.3	0.3	0.2	0.4	0.3	0.2	0.3
8. = Apparent aluminum consumption	5.2	3.3	1.8	2.2	2.0	1.9	1.4	1.7	2.2	2.1	3.0
13. ÷ Mid-year population (mill.)	2.1	2.1	2.0	2.0	2.0	1.9	1.9	1.8	1.7	1.6	1.6
14. = Per capita consumption (lbs.)(1)	4.9	3.2	1.8	2.2	2.0	2.0	1.5	1.8	2.6	2.6	3.8

NOTES:
(1) Without inventory change

SOURCE: Aluminio de Panama, S.A.

Detail may not add to totals due to rounding.

REPUBLIC of the PHILIPPINES

	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
3. + Imports of ignot	7.3	16.3	20.4	11.5	19.4	31.3	18.5	18.7	19.2	6.8	20.3
4. + Imports of mill products	8.2	9.8	15.0	4.9	6.0	7.6	4.7	4.0	2.5	5.0	2.4
6. – Exports of ingot	—	—	*	*	1.0	1.1	—	—	0.2	0.1	—
7. – Exports of mill products	1.7	4.1	6.9	5.2	6.2	3.2	3.8	0.9	0.3	1.9	4.6
8. = Apparent aluminum consumption	13.8	22.0	28.5	11.1	19.3	35.8	19.4	21.8	21.2	9.8	18.1
13. ÷ Mid-year population (mill.)	53.4	52.1	50.7	49.5	48.3	47.1	45.9	44.7	43.5	42.2	41.3
14. = Per capita consumption (lbs.)(1)	0.5	0.8	1.1	0.4	0.8	1.5	0.8	1.0	1.0	0.5	0.9

NOTES:
(1) Without inventory change
r — Revised

SOURCE: National Census and Statistics Office, Philippines

PORTUGAL

	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
3. + Imports of ingot	28.7	47.4r	54.6	46.8	30.3	24.0	22.3	9.3	6.3	2.9	2.9
4. + Imports of mill products	14.0	16.9r	16.0	17.0	18.3	16.4	18.3	29.1	22.0	13.4	35.0
5. + Recovery of secondary	na	1.9	2.0	2.2	2.9	4.2	3.4	2.3	2.2	2.2	2.3
6. – Exports of aluminum ingot	0.9	0.4	0.6	0.4	0.3	1.0	0.2	0.1	0.1	—	(a)
7. – Exports of mill products	4.4	8.8	12.9	6.7	9.5	6.6	1.7	6.9	3.3	5.6	4.1
8. = Apparent aluminum consumption	na	57.0r	59.1	58.9	41.7	37.0	42.1	33.7	27.1	12.9	36.1
13. ÷ Mid-year population (mill.)	na	9.9	9.9	9.9	9.9	9.8	9.8	9.7	9.7	9.4	9.1
14. = Per capita consumption (lbs.)(1)	na	11.5r	11.9	11.9	8.5	7.6	8.6	6.9	5.6	2.7	7.9

NOTES:
(1) Without inventory change
(a) Less than .05 thousand short tons
na Not received at publication time
** Including the Azores and Madeira*

SOURCE: National Statistical Institute, Lisbon

EL SALVADOR

	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
3. + Imports of ingot	1.3	1.2	1.0	1.4	1.8	2.6	2.7	2.2	1.9	1.4	1.2
4. + Imports of mill products	0.4	2.1	—	0.9	0.4	1.3	2.2	0.7	1.9	0.7	1.8
5. + Recovery of secondary	0.6	0.6	0.7	0.7	0.8	1.0	1.1	1.9	0.8	0.6	0.5
7. – Exports of mill products	1.2	1.1	0.4	1.4	2.1	2.6	3.6	2.9	2.3	1.8	2.6
8. = Apparent consumption	1.1	2.8	1.2	1.4	1.0	2.2	2.3	0.9	2.2	0.8	0.9
13. ÷ Mid-year population (mill.)	4.8	4.7r	1.2	4.6	4.5	4.4	4.4	4.3	4.1	4.0	3.9
14. = Per capita consumption (lbs.)(1)	0.5	1.2r	0.5	0.6	0.4	1.0	1.0	0.4	1.1	0.4	0.5

NOTES:
(1) Without inventory change
e — Estimated
r — Revised

SOURCE: Aluminio de Centro America, S.A.

Detail may not add to totals due to rounding.

Per Capita Aluminum Consumption—Continued

Thousands of short tons

KINGDOM OF SAUDI ARABIA

	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
1. + Primary production	—	—	*	*	—	—	—	—	—	—	—
3. + Imports of ingot	9.6	16.1	5.7	88.5	80.9	58.7	51.2	40.6	12.3	6.4	6.0
4. + Imports of mill products	67.9	164.1	31.7	13.4	15.4	13.6	13.4	10.4	5.8	3.5	2.2
6. − Exports of ingot	—	—	—	4.2	1.9	0.6	0.4	0.5	*	0.1	*
7. − Exports of mill products	—	—	0.6	*	0.2	0.5	0.2	0.6	0.1	0.2	*
8. = Apparent consumption	77.4	180.2	36.8	97.7	94.2	71.3	63.9	49.9	18.0	9.5	8.1
13. ÷ Mid-year population (mill.)	7.8	7.8	7.8	7.8	7.6	7.5	7.3	7.1	6.9	6.7	6.5
14. = Per capita consumption (lbs.)(1)	19.8	46.1	9.4	25.1	24.8	19.0	17.5	14.1	5.2	2.8	2.5

NOTES:
(1) Without inventory change
** less than 50 tons*
na not available

SOURCE: Saudi Basic Industries Corp.

SINGAPORE, REPUBLIC OF

	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
3. + Imports of ingot	12.1	19.8	12.1	8.8	9.9	6.6	8.8	4.4	4.4	1.1	3.3
4. + Imports of mill products	36.4	38.6	30.9	29.8	23.1	25.4	17.6	15.4	12.1	8.8	14.3
6. − Exports of ingot	7.7	14.3	6.6	3.3	4.4	3.3	4.4	1.1	1.1	—	—
7. − Exports of mill products	7.7	15.4	7.7	4.4	4.4	4.4	4.4	1.1	1.1	1.1	1.1
8. = Apparent consumption	33.1	28.7	28.7	30.9	24.3	24.3	17.6	17.6	14.3	8.8	16.5
13. ÷ Mid-year population (mill.)	2.5	2.5	2.5	2.4	2.4	2.4	2.4	2.3	2.3	2.3	2.2
14. = Per capita consumption (lbs.)(1)	26.5	22.9	23.0	25.3	20.1	20.4	15.0	15.1	12.5	7.8	14.8

NOTES:
(1) Without inventory change

SOURCE: Department of Statistics, Singapore

SOUTH AFRICA, REPUBLIC OF

	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
1. + Primary aluminum production	177.8	184.5	116.6	92.3	94.8	93.8	87.6	85.3	85.4	82.8	80.0
3. + Imports of ingot	0.5	0.2	0.8	2.0	0.3	0.7	0.7	0.4	0.7	1.4	0.9
4. + Imports of mill products	16.4	13.0	11.9	13.2	12.2	7.8	7.2	6.5	10.7	13.2	12.7
5. + Recovery of secondary	35.0	31.1	30.0	31.2	30.0	18.2	11.2	10.6	5.3	6.1	6.7
6. − Exports of ingot	121.8	91.2	27.1	3.2	14.2	36.5	42.4	32.1	17.0	21.1	16.1
7. − Exports of mill products	0.8	2.4	1.0	1.2	3.6	1.9	2.3	2.8	3.3	2.6	3.0
8. = Apparent aluminum consumption	107.1	135.2	131.2	132.4	119.5	82.1	62.0	68.0	81.8	79.8	81.2
11. ± Inventory change	−12.8	+8.8	+13.6	+4.1	+0.4	+0.9	−7.9	−1.1	+4.1	+0.7	+0.1
12. = Aluminum consumption	119.9	126.4	117.6	128.3	119.0	81.2	69.9	69.1	77.7	79.1	81.1
13. ÷ Mid-year population (mill.)	26.1(4)	26.8(4)	26.2(3)	25.6(3)	24.1(3)	28.2	27.3	26.7	26.1	25.5	24.9
14. = Per capita consumption (lbs.)(1)	8.2	10.1	9.9	10.3	9.9	5.8	4.6	5.1	6.3	6.3	6.5
15. = Per capita consumption (lbs.)(2)	9.2	9.4	9.0	10.0	9.9	5.8	5.1	5.2	6.0	6.2	6.5

NOTES:
(1) Without inventory change
(2) Adjusted for inventory change
(3) Estimate: Population excludes independent homelands—Republics of Transkei, Bophutatswanda and Venda
(4) Estimate: Population excludes independent homelands—Republic of Transkei, Bophutatswanda, Venda and Ciskei

SOURCE: Non-ferrous Metals Industries Association, Huletts Aluminum Ltd. and Aluminum Federation of South Africa

Detail may not add to totals due to rounding.

SPAIN

	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
1. + Primary aluminum production	419.8	391.9r	402.4r	437.2	426.0	286.5	233.9	233.5	231.8	233.1	210.5
3. + Imports of aluminum ingot	11.7	13.6r	20.2r	15.0	3.5	7.9	41.8	40.6	15.9	31.5	30.2
4. + Imports of mill products	28.7	45.9	34.2	23.5	26.5	22.4	17.5	27.9	15.1	14.6	19.7
6. – Exports of aluminum ingot	256.0	182.9	160.1r	179.3	117.7	47.3	6.4	9.9	11.9	2.6	2.8
7. – Exports of mill products	44.6	38.9	40.7	43.0	50.0	53.1	30.9	33.1	31.7	31.5	24.3
8. = Apparent aluminum consumption	159.5	229.5	256.1	253.3	288.3	216.4	256.0	258.9	219.1	245.0	233.5
11. ± Inventory change	–27.6e	+4.4	+25.9	+36.9	+23.1	–20.5	+26.5	+3.0	–22.0	+38.6	–7.7
12. = Aluminum consumption	187.1	225.1	230.2r	213.1	265.1	236.6	299.5	256.0	241.2	206.5	241.2
13. ÷ Mid-year population (mill.)	38.4	38.2	37.9	37.7	37.4	37.1	36.8	36.4	36.0	35.6	35.2
14. = Per capita consumption (lbs.)(1)	8.4	12.0	13.5	13.4	15.4	11.7	13.9	14.2	12.2	13.8	13.3
15. = Per capita consumption (lbs.)(2)	9.7	11.8	12.1r	11.3	14.2	12.8	12.5	14.1	13.4	11.6	13.7

NOTES:
(1) Without inventory change
(2) Adjusted for inventory change
(e) Estimated
r = Revised

SOURCE: Aluminio De Galicia, S.A.

SWEDEN

	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
1. + Primary aluminum production	91.4	90.6	87.0	91.3	89.9	90.4	90.4	91.0	89.7	85.3	90.9
3. + Imports of ingot	53.5	54.8	50.2	42.7	40.7	40.5	37.7	47.8	51.5	37.1	49.6
4. + Imports of mill products	96.3	95.1	81.6	69.4	71.0	72.1	60.7	65.4	70.5	60.6	59.9
5. + Recovery of secondary	34.0	27.4	25.6	27.2	27.0	26.5	27.7	27.0	26.5	37.9	39.5
6. – Exports of aluminum ingot	42.1	43.2	38.8	41.7	19.5	21.6	42.4	35.8	14.7	6.3	10.8
7. – Exports of mill products	44.5	55.8	51.0	47.4	51.9	63.7	59.1	51.1	46.8	33.6	52.8
8. = Apparent aluminum consumption	188.8	169.0	154.4	141.5	157.2	144.1	115.0	144.3	176.7	181.1	176.3
11. ± Inventory change	6.4	2.2	–7.4	+0.8r	+14.3	–8.9	–20.4	+1.3	+9.5	+17.7	+2.2
12. = Aluminum consumption	182.4	171.2	161.8	142.3r	142.9	153.0	135.4	143.0	167.2	163.4	174.1
13. ÷ Mid-year population (mill.)	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.2	8.2	8.2
14. = Per capita consumption (lbs.)(1)	45.2	40.6	37.0	34.0r	37.9	34.7	27.7	34.8	43.1	44.2	43.0
15. Per capita consumption (lbs.)(2)	43.7	41.1	38.8	34.2r	34.4	36.9	32.6	34.5	40.8	39.8	42.5

NOTES:
(1) Without inventory change
(2) Adjusted for inventory change
r = Revised

SOURCE: National Central Bureau of Statistics, Sweden, and Granges Aluminum

Detail may not add to totals due to rounding

Per Capita Aluminum Consumption—Continued

Thousands of short tons

SWITZERLAND

	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
1. + Primary aluminum production	87.3	83.8	83.0	90.9	95.1	91.5	87.7	88.0	86.2	86.9	95.9
3. + Imports of ingot	69.2	63.1	52.2	39.8	58.2	43.7	37.4	43.2	34.3	17.7	45.8
4. + Imports of mill products	61.8	58.1	51.9	52.8	56.9	47.0	39.8	34.5	27.0	18.5	28.9
5. + Recovery of secondary	25.4	23.3	20.6	22.7	21.4	21.2	19.7	22.2	19.6	16.4	19.0
6. − Exports of ingot	28.3	29.4	28.0	25.0	25.1	29.1	19.4	18.1	21.0	12.9	12.6
7. − Exports of mill products	92.9	88.6	77.7	72.8	79.4	84.4	74.1	77.6	64.7	50.0	56.6
8. = Apparent aluminum consumption	122.5	110.1	102.1	108.1	127.1	89.9	91.1	92.2	81.4	76.6	120.4
11. ± Inventory change	8.0	+3.4	−4.6	−0.8	+6.5	−7.4	−1.1	+2.1	−6.5	+5.5	+8.8
12. = Aluminum consumption	−130.5	106.7	106.7	108.9	120.7	97.2	92.2	90.1	87.9	71.1	111.6
13. ÷ Mid-year population (mill.)	6.5	6.5	6.4	6.4	6.4	6.2	6.2	6.3	6.3	6.4	6.4
14. = Per capita consumption (lbs.)(1)	37.7	34.1	32.0	33.8	39.7	29.0	29.4	28.3	25.8	23.9	37.7
15. = Per capita consumption (lbs.)(2)	40.1	33.0	33.3	34.0	37.7	31.4	29.8	28.6	27.9	22.2	34.9

NOTES:
(1) Without inventory change
(2) Adjusted for inventory change

SOURCE: Swiss Aluminum Ltd. and European Primary Aluminum Assn.

TAIWAN, REPUBLIC OF CHINA

	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
1. + Primary aluminum production	—	—	11.0	33.1	68.9	61.9	55.6	32.8	28.1	30.9	34.5
3. + Imports of ingot	110.1	153.3	97.7	52.6	64.3	58.3	52.5	57.9	40.1	12.7	20.2
4. + Imports of mill products	25.1	25.6	16.5	10.7	10.6	12.5	8.0	6.4	6.8	2.2	5.6
5. + Recovery of secondary(1)	5.8	26.7	17.1	18.5	21.2	15.2	10.5	9.6	6.8	6.5	9.0
6. − Exports of ingot	3.4	2.9	0.7	—	*	*	0.4	0.1	0.3	1.6	5.0
7. − Exports of mill products	19.1	20.3	15.4	21.2	19.0	16.6	8.2	4.0	4.0	4.1	3.2
8. = Apparent aluminum consumption	118.6	182.4	126.2	93.7	145.9	131.3	117.9	102.6	77.5	46.6	61.1
± Inventory change	na	na	+1.0	−37.0	+26.3	+0.1	+8.6	+15.3	+6.6	−8.4	+9.1
12. = Aluminum consumption	na	na	125.2	130.7	119.6	131.2	109.3	87.3	70.9	55.0	52.0
13. ÷ Mid-year population (mill.)	18.8	18.6	18.3	18.0	17.8	17.5	17.0	16.7	16.3	16.0	15.7
14. = Per capita consumption (lbs.)(2)	12.6	19.6	13.9	10.4	16.4	15.0	13.9	12.3	9.5	5.8	7.8
15. = Per capita consumption (lbs.)(3)	na	na	13.7	14.5	13.4	15.0	12.8	10.5	8.7	6.9	6.6

NOTES:
(1) Recovery of imported scrap only
(2) Without inventory change
(3) Adjusted for inventory change
** Less than 50 tons.*

SOURCE: Taiwan Aluminum Corporation

TURKEY, REPUBLIC OF

	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
1. + Primary production	na	33.4	35.8(a)	44.5	37.0	37.6	44.9	51.6	45.2	18.0	—
3. + Imports of ingot	76.1	66.1r	38.6	38.6r	12.1r	14.3	12.3	45.1	29.7	57.0	55.4
4. + Imports of mill products	3.3	6.6r	9.9r	4.4r	3.3r	7.7r	1.9	3.3	4.3	3.2	2.8
6. − Exports of aluminum ingot	—	7.7r	1.1r	—	—	—	—	—	—	—	—
7. − Exports of mill products	29.8	17.6r	15.4r	9.9r	6.6r	6.6r	6.8	10.8	9.7	3.5	24.4
8. = Apparent aluminum consumption	na	80.8r	67.8r	77.6r	45.8r	53.0r	52.2	89.2	69.4	74.7	33.8
13. ÷ Mid-year population (mill.)	na	47.2	47.5	46.0	44.4	43.5	42.6	41.8	40.9	40.0	39.0
14. = Per capita consumption (lbs.)(2)	na	3.4	2.9r	3.4r	2.1	2.4r	2.5	4.3	3.4	3.7	1.7

NOTES:
(2) Without inventory change
na Not available at publication time
** Less than 50 tons.*
e — estimated
(a) Source: World Bureau of Metal Statistics

SOURCE: State Institute of Statistics, Ankara, Turkey

Detail may not add to totals due to rounding

UNITED KINGDOM

		1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
1.	+ Primary aluminum production	317.4	278.3	265.4	373.9	412.8	396.2	381.6	384.6	368.6	339.8	323.1
3.	+ Imports of ingot	187.6	179.0	170.6	135.9	186.7	200.7	204.1	217.6	240.2	176.6	309.4
4.	+ Imports of mill products	258.2	247.1	221.1	173.5	159.8	197.8	174.0	143.6	123.6	82.7	114.3
5.	+ Recovery of secondary	151.1	135.1	119.5	155.1	165.3	176.3	192.0	200.9	207.0	184.2	208.2
6.	− Exports of ingot	132.1	139.4	129.5	185.7	208.2	220.5	171.4	157.3	174.4	96.7	96.4
7.	− Exports of mill products	115.4	100.2	102.5	95.5	112.0	78.5	66.0	70.8	65.7	59.5	76.1
8.	= Apparent aluminum consumption	666.8	600.0	544.7	567.1	604.3	672.1	714.3	718.7	699.5	627.1	782.5
11.	± Inventory change	+0.8	−13.6	−23.5	−13.6	+1.5	+55.0	−29.1	−20.2	−1.4	+17.7	+12.6
12.	= Aluminum consumption	666.0	613.5	568.1	580.7	602.7	617.1	743.4	738.9	701.0	609.4	769.9
13.	÷ Mid-year population (mill.)	56.4	56.0	56.0	56.0	55.9	55.9	55.8	55.9	55.9	56.1	56.2
14.	= Per capita consumption (lbs.)(1)	23.7	21.4	19.5	20.3	21.6	24.0	25.6	25.7	25.0	22.4	27.8
15.	= Per capita consumption (lbs.)(2)	23.6	21.9	20.3	20.7	21.6	22.1	26.6	26.4	25.1	21.7	27.4

NOTES:
(1) Without inventory change
(2) Adjusted for inventory change

SOURCE: Aluminium Federation Ltd.

UNITED STATES of AMERICA

		1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
1.	+ Primary aluminum production	4,518.1	3,696.3	3,608.6	4,947.9	5,129.7	5,023.1	4,803.8	4,538.7	4,251.4	3,879.1	4,903.5
2.	± Govt. stockpile adjustment	—	—	—	—	—	—	—	—	9.2	2.5	510.5
3.	+ Imports of ingot	972.2	818.7	679.4	710.7	580.7	570.8	757.8	670.3	575.4	434.1	508.9
4.	+ Imports of mill products	544.8	309.2	227.8	152.0	84.0	213.2	242.2	82.4	94.5	65.1	54.9
5.	+ Recovery of secondary	1,940.0	1,954.4r	1,836.0	1,973.0	1,738.0	1,777.0	1,673.0	1,605.0	1,471.0	1,236.0	1,282.0
6.	− Exports of ingot	286.2	397.6	401.1	344.2	714.9	200.7	126.6	97.8	152.4	185.9	207.8
7.	− Exports of mill products	252.1	222.8	246.2	340.8	381.7	310.8	247.1	258.3	257.9	216.6	255.7
8.	= Apparent aluminum consumption	7,436.8	6,158.2r	5,704.5	7,098.6	6,435.8	7,072.6	7,103.1	6,540.3	5,991.2	5,214.3	6,796.3
9.	+ Beginning inventory	2,497.1	3,099.7	3,303.3	2,538.0	2,562.6	2,747.0	2,853.2	2,850.4	2,999.4	2,578.0	2,183.0
10.	− Ending inventory	2,924.7	2,504.6	3,099.7	3,303.3	2,538.0	2,562.6	2,747.0	2,853.2	2,850.4	2,999.4	2,578.0
11.	= Inventory change	+427.6	−595.1	−203.6	+765.3	−24.6	−184.4	−106.2	+2.8	−149.0	+421.4	+395.0
12.	= Aluminum consumption	7,009.2	6,753.3r	5,908.1	6,333.3	6,460.4	7,257.0	7,209.3	6,537.5	6,140.2	4,792.9	6,401.3
13.	÷ Mid-year population (mill.)	236.4	234.0	231.5	229.3	227.7	220.6	218.7	216.8	215.1	213.6	211.9
14.	= Per capita consumption (lbs.)(1)	62.9	57.6r	49.3	61.9	56.5	64.1	65.0	60.3	55.7	48.8	64.1
15.	= Per capita consumption (lbs.)(2)	59.3	57.7r	51.0	55.2	56.8	65.8	65.9	60.3	57.1	44.9	60.4

NOTES:
(1) Without inventory change
(2) Adjusted for inventory change
** Removal of less than 50 short tons*

r — Revised

SOURCE: the Aluminum Association, Inc.

VENEZUELA

		1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
1.	+ Primary production	423.3	368.2r	301.6	345.6	354.2	231.8	74.0	47.8	51.2	49.5	43.2
3.	+ Imports of ingot	—	—r	1.0	0.4	0.2	10.6	—	8.7	2.2	0.2	—
4.	+ Imports of mill products	23.1	14.3r	28.3	26.2	27.3	16.9	29.9	17.0	10.5	5.2	2.1
5.	+ Recovery of secondary	15.4	22.0r	11.0	11.0	11.0	11.2	11.0	1.4	2.0	0.7	1.4
6.	− Exports of ingot	384.7	352.7r	229.8	263.4	239.5	136.0	31.0	11.5	19.4	—	15.8
7.	− Exports of mill products	3.3	3.3r	0.2	26.9	40.9	25.4	—	—	—	—	0.1
8.	= Apparent aluminum consumption	73.9	48.5r	111.9	92.9	112.3	109.1	83.9	63.5	46.5	44.8	30.8
9.	+ Beginning inventory	71.6	69.4r	53.8	28.0	22.3	11.1	1.2	4.1	9.4	1.6	1.7
10.	− Ending inventory	103.6	71.6r	61.6	53.8	28.0	22.3	11.2	6.1	3.5	8.1	1.6
11.	± Inventory change	+40.0	+2.2r	+7.8	+25.8	+5.7	+9.0	+10.0	+2.0	−5.9	+6.5	−0.1
12.	= Aluminum consumption	41.9	46.3r	104.2	67.1	106.6	100.1	74.0	61.5	52.4	38.3	30.9
13.	÷ Mid-year population (mill.)	16.6	16.1r	14.9	14.6	13.9	13.5	13.1	12.7	12.9	12.5	12.0
14.	= Per capita consumption (lbs.)(1)	8.9	6.0r	15.0	12.6	16.1	16.1	12.8	10.0	7.2	7.2	5.1
15.	= Per capita consumption (lbs.)(2)	5.0	5.8r	13.9	9.0	15.2	14.8	11.3	9.7	8.1	6.1	5.2

NOTES:
(1) Without inventory change
(2) Adjusted for inventory change
r — Revised
Detail may not add to totals due to rounding.

SOURCE: Aluminio del Caroni, S.A., Venezuela

ACSR AND ALUMINUM CABLE, BARE—Aluminum stranded conductor reinforced by a core of steel (ACSR), or aluminum (ACAR); or any other bare stranded aluminum conductor.

ATOMIZED POWDER—Powder produced by blowing or asperating molten metal through an orifice.

CASTING—A product made by pouring molten metal into a mold of a desired shape and letting it harden.

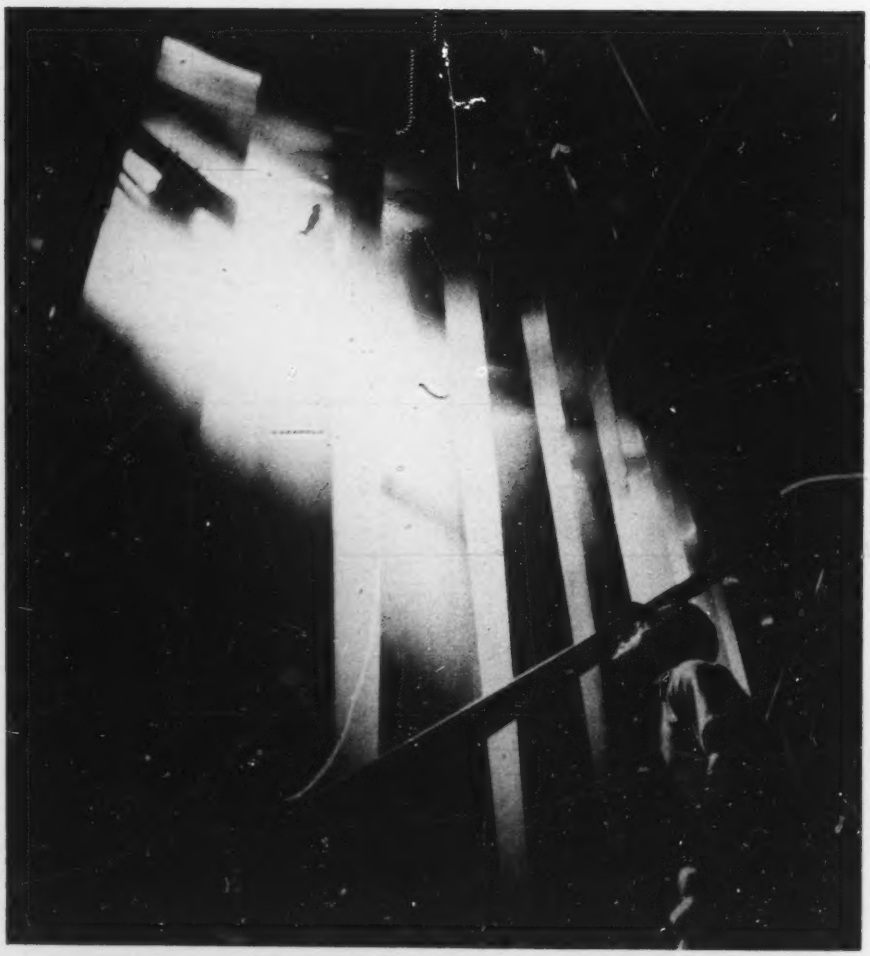
CONDUCTOR REDRAW ROD (CONTINUOUS-CAST OR ROLLED)—A solid round product that is long in relation to cross section, 0.375″ or greater in diameter, produced by continuous casting followed by size-rolling, or by rolling from D.C. cast ingot, suitable for drawing into electrical conductor wire.

DIRECT MILL USES—Finished product applications supplied for the most part directly from mills rather than from distributors or jobber warehouses.

DRAWING STOCK (Redraw Rod)—See Conductor or Non Conductor Redraw Rod.

DRAWN TUBE—A hollow product that is long in relation to its cross section, which is round, square, rectangular, hexagonal, octagonal, or elliptical in shape, and brought to final dimensions by drawing.

DROSS AND SKIMMINGS—The mixture of oxides and other impurities which float to the surface of molten aluminum and is skimmed off.



Ingot produced from scrap is an important contributor to the total aluminum supply.

EXTRUDED PIPE AND TUBE—A hollow product formed by extruding that is long in relation to its cross section, which is round, square, rectangular, hexagonal, octagonal, or elliptical in shape.

EXTRUDED ROD AND BAR—A solid product produced by extruding (sometimes brought to final dimensions by drawing) that is long in relation to cross section, which is round, square, rectangular, hexagonal, or octagonal in shape and 0.375″ or greater in diameter or in at least one perpendicular distance between parallel faces.

EXTRUDED SHAPES—A product produced by extruding, that is long in relation to its cross-sectional dimensions and has a cross section other than that of rod and bar and pipe and tube.

EXTRUSION INGOT (BILLET)—A solid or hollow cast form, usually cylindrical, suitable for extruding.

FLAKED POWDER—Powder consisting of flat or scale-like particles of a thickness small compared with other dimensions, produced by milling in the presence of a lubricant.

FOIL—A flat rolled product, rectangular in cross section, of thickness less than 0.006″.

FORGINGS (EXCLUDING IMPACT EXTRUSIONS)—A product worked to a predetermined shape by one or more processes such as hammering, upsetting, pressing, rolling, etc.

GENERAL LINE DISTRIBUTOR—Warehouses and sells a number of mill products to a wide variety of customers.

IMPACTS (EXCLUDING COLLAPSIBLE TUBES AND CANS)—A product formed in a confining die from a metal slug, usually cold, by rapid single stroke application of force through a punch, causing the metal to flow around the punch and/or through an opening in the punch or die.

INTEGRATED PRODUCER (OR SUPPLIER)—For statistical reporting, a company which produces primary aluminum ingot in the United States and produces mill products from it.

METALLURGICAL/DESTRUCTIVE USES—Applications wherein, because of the way it is used, aluminum either loses its identity or is lost and cannot be recovered. Major uses include the deoxidizing of steel and reduction of ferroalloys; steel and other nonferrous metal alloys; steel coating; and such other applications as chemicals and catalysts.

MILL PRODUCTS—Metal that has been fashioned into an intermediate or semifabricated form in preparation for making a finished product. Example: sheet, a mill product, is used to make residential siding, a finished product.

NET SHIPMENTS—Excludes intra-industry shipments for further fabrication. It is the most accurate measure of industry output to markets because it eliminates duplication. Reported receipts of aluminum for further processing are subtracted.

NONCONDUCTOR REDRAW ROD (CONTINUOUS-CAST OR ROLLED)—A solid round product that is long in relation to cross section, 0.376″ or greater in diameter, produced by continuous casting followed by size-rolling, or by rolling from D.C. cast ingot, suitable for drawing into nonconductor wire.

NONINTEGRATED FABRICATOR (OR SUPPLIER)—For statistical reporting, a U.S. mill product fabricator which is not affiliated with a domestic primary ingot producer.

OTHER INGOT AND MOLTEN METAL, PRIMARY—For statistical purposes, a cast form other than extrusion ingot (or molten metal), shipped by an integrated producer or nonintegrated fabricator from a company-owned facility not exclusively devoted to producing secondary ingot.

OTHER INGOT AND MOLTEN METAL, SECONDARY—For statistical purposes, a cast form other than extrusion ingot (or molten metal), principally produced from aluminum scrap to specification by secondary smelters (or others at a facility exclusively devoted to producing ingot from scrap for sale); excludes remelt scrap ingot (RSI) which is considered scrap until remelted and cast into specification ingot.

OTHER ROD AND BAR (CONTINUOUS-CAST OR ROLLED)—A solid, round, square, rectangular, hexagonal, or octagonal in shape produced by continuous casting or rolling, that is long in relation to cross section, 0.375″ or greater in diameter or in at least one perpendicular distance between parallel faces; other than redraw rod and D.C. cast ingot.

PASTE—A blend of powder or flake with a thinner or plasticizer.

PLATE, NONHEAT-TREATABLE—A flat rolled product, rectangular in cross section, 0.250″ or greater in thickness, which can be strengthened only by cold work.

PLATE, HEAT-TREATABLE—A flat rolled product, in 2000, 6000, or 7000 alloy series (except 7072), rectangular in cross section, 0.250″ or greater in thickness, which can be strengthened by a suitable thermal treatment.

POWDER—An aggregate of discrete particles of aluminum, substantially all of which are finer than 1,000 microns (minus 18 mesh).

RECEIPTS—The metal physically received by a company for further processing.

REIMPORTS—Mill products that have been exported, partially processed outside the United States, and imported back to the United States while still in a mill product stage.

ROLLED STRUCTURAL SHAPES—A structural shape produced by hot rolling.

SECONDARY SMELTER—A company whose facilities are exclusively devoted to producing ingot or molten aluminum from scrap.

SEMIFABRICATED PRODUCTS—See Mill Products.

SHEET, NONHEAT-TREATABLE—A rolled product, flat or coiled, rectangular in cross section, of 0.006″ thickness but under 0.250″ thickness, which can be strengthened only by cold work.

SHEET, HEAT-TREATABLE—A rolled product, in 2000, 6000, or 7000 alloy series (except 7072), flat or coiled, rectangular in cross section, of 0.006″ thickness but under 0.250″ thickness, which can be strengthened by a suitable thermal treatment.

STATISTICAL ADJDUSTMENT—An adjustment made to product shipment data to account for net shipments of aluminum reported by the Bureau of the Census which are believed to be either over- or understated due to excessive or insufficient reporting of receipts. The addition of the statistical adjustment reconciles the amounts reported by the Bureau of the Census with the net shipments that the Aluminum Association feels are more correct.

WELDED TUBE—A hollow product that is long in relation to its cross section, which is round, square, rectangular, hexagonal, octagonal, or elliptical in shape, produced by forming and seam-welding sheet longitudinally.

WIRE, BARE, CONDUCTOR AND NONCONDUCTOR—A solid wrought product that is long in relation to its cross section, which is square, round, rectangular, hexagonal, or octagonal in shape, whose diameter or greatest perpendicular distance between parallel faces (except for flattened wire) is less than 0.375″.

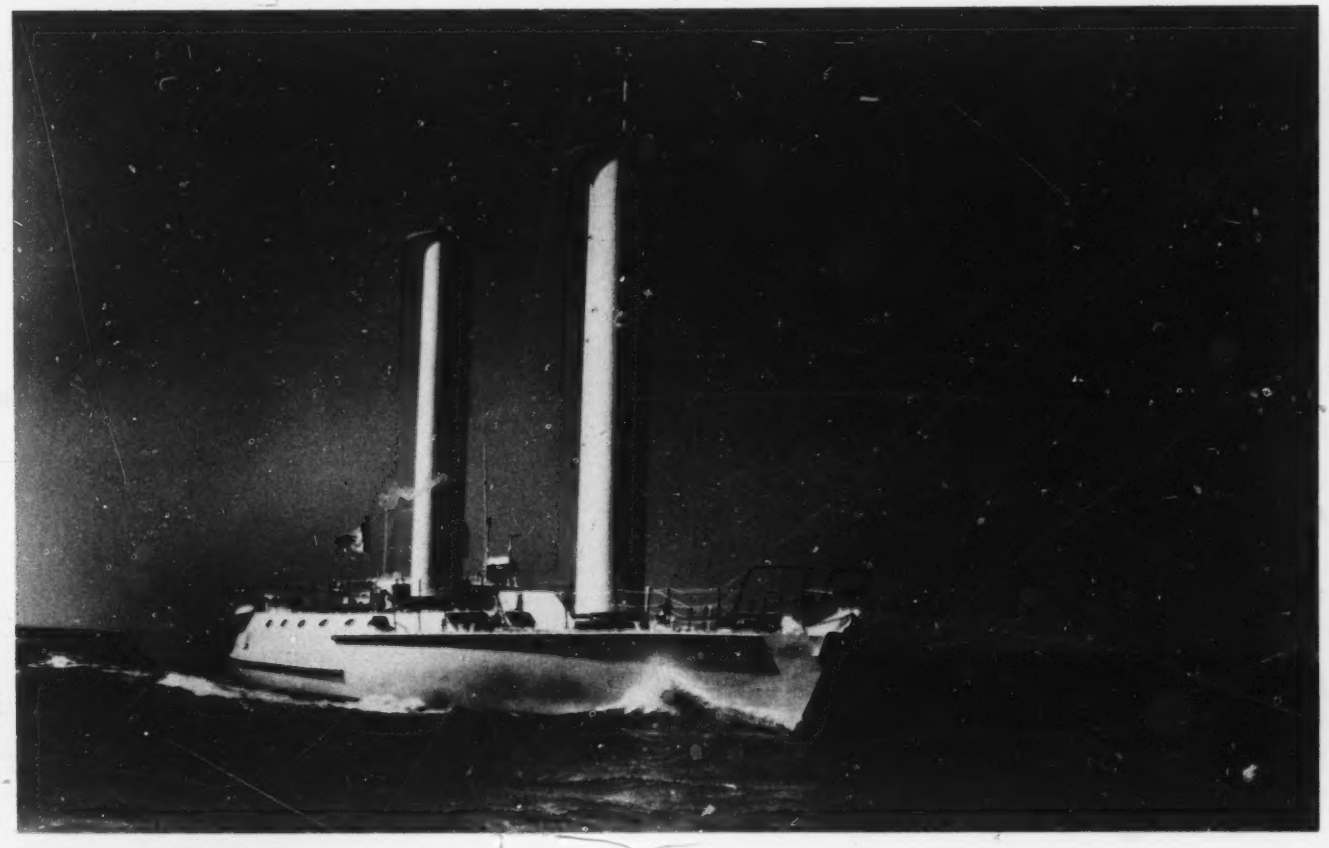
WIRE AND CABLE, INSULATED OR COVERED—Aluminum electrical conductor wire or stranded conductors that are insulated or covered.

Publications

The following publications are available from the Aluminum Association, Inc.

Aluminum Situation (monthly)
U.S. Exports and Imports of Aluminum (monthly and quarterly)
Aluminum Extrusion Press Directory
Aluminum Statistical Review Historical Supplement
U.S. Aluminum Industry Plant Directory (1985)
Publications Guide of the Aluminum Association
Film Guide of the Aluminum Association
About the Aluminum Association (a brochure)

Write to the Publications Department, the Aluminum Association, Inc., 818 Connecticut Avenue, N.W., Washington, D.C. 20006.



Named for the Greek goddess of winds, Captain Jacques Cousteau's new ship ALCYONE is composed of 33 tons of lightweight aluminum, including 3,500 pounds in each of its two cylindrical turbosail units.